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THE DRUGGISTS CIRCULAR

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Happy New Year.

Another Christmas has come and gone and another New Year is before us. We trust that each of our readers has spent the holiday season happily, and that the twelvemonth upon which he is just entering holds much in store for him that will make him even more happy when another Christmas rolls 'round—as it is sure to do, and with a speed which will seem remarkable to many. The columns of figures on the two sides of the ledger have been added, and in most cases we believe the totals show that 1910 was a good year for business.

Distressing though the thought may be, it is true that there are always some who have been unfortunate in business, whose personal affairs are not in a shape which conduces to happiness, to whom the future looks anything but roseate. If they could not join whole-heartedly in the happiness which so pervaded the atmosphere during the Christmas season, they could at least find some consolation in the fact that things might have been worse than they were. May these be able to begin the year with a determination to get out of it the best there is in it for them, and may success crown their efforts.

We want the successful and the unsuccessful, the happy and the unhappy, the gay and the sad ever to remember that this is a good old world to live in, and that there is always an opportunity for each of us to make it better by making himself better, and to enter upon the work before them with the determination to get happiness *out* of it by putting their hearts *into* it. Let us not rail at the inevitable, let us strive to be philosophic, let us be successful and happy, happy and successful, each because of the other. Much of what a man is, depends upon the condition of his mind—there is something in Christian science beside foolishness, even though many consider that its leading characteristic. A man whose conscience is clear, and whose dealings with his fellow man is marked by justice and tempered by a spirit of tolerance should never be unhappy, and his life can never be wholly a failure, no matter how much or how little his administrator may find to distribute.

As heretofore, THE DRUGGISTS CIRCULAR will do what it can during the year now upon us, to advance the interests of its readers professionally, to aid them in their pharmaceutical work, and to make their commercial outlook clearer.

Here, then, is wishing all our readers a Happy New Year.

Retrospect of a Decade.

It seems to some of us older ones not much longer ago than last year, or a year before that at most, that the phrase *fin de siècle* (pronounced in all sorts of ways) was on everyone's lips and in every paper or journal one could pick up. As a matter of fact, however, the expression belongs to a past century, and we are now entering upon the second decade of the present one. A favorite occupation for the New Year moments which one devotes to reflection is looking back over the old year and noting the changes it has wrought; and at the beginning of each year whose number ends with the figure one it may be worth while to take a view extending backward over the old decade.

Since the beginning of the last such year many things have taken place which bulk large in the making of pharmaceutical and drug-trade history; so many things, in fact, and so important, that one is almost at a loss to know which should be named and which allowed to fall under the head of matters that are necessarily left unmentioned for lack of space. Of course no American druggist can contemplate changes which have taken place in his line of business during the tenth of a century just ended, without giving more than a passing thought to the passage of the federal food and drugs act and the many State acts based upon it. This is not only the greatest thing in drug annals during the past ten years, but it marks one of the most important advances made in the history of the country. Other things worthy of especial consideration in this connection are the higher educational attainments required of those who secure license to practice pharmacy, the convention for revising the Pharmacopœia, the growth of the chain-store idea, the rise and collapse of the "tripartite plan" for controlling the prices of proprietary goods, the passage of pharmacy laws for those few States and Territories which were without them ten years ago, the renascence of the American Pharmaceutical Association and the formation under its protective wing of the National Association of Boards of Pharmacy and the American Conference of Pharmaceutical Faculties, the awakening of the more enlightened portion of the lay press to its duty toward its readers in the matter of fraudulent nostrums, the establishment of the council on pharmacy and chemistry of the American Medical Association, and the joining of the *Journal* of that association with the CIRCULAR in the latter's efforts to show medical men and pharmacists how they to a large extent have abandoned

York, one of the oldest members of the American Pharmaceutical Association; John Wyeth, of Philadelphia, druggist and manufacturer; J. W. Champion, of Philadelphia, originator of the "Champion plan" to prevent price-cutting; J. C. Eliel, of Minneapolis, a retail druggist who afterward made a success as a wholesaler; and C. V. Emich, the Nestor of the Baltimore retail drug trade.

1908—Arthur Timberlake, of Indianapolis, prominent in local affairs as well as in the councils of the National Association of Retail Druggists; Thomas Lord, of Chicago, first a retailer then a wholesaler; Henry Imhof, a former president of the New York German Apothecaries' Society; Dr. J. A. Miller, of Harrisburg, secretary of the Pennsylvania Pharmaceutical Association from its organization in 1878 to the time of his death; L. Myers Conner, first president of the Texas Pharmaceutical Association; William Dupont, an old time druggist and active association man of Detroit; F. A. Davidson, president of the Theodore Metcalf corporation, of Boston; E. F. L. Jenner, of Derby, N. S., president of the Nova Scotia Pharmaceutical Society, and, under the pen name "Thercites Mendax," a writer of exceedingly interesting contributions to the pharmaceutical press.

1909—W. M. Searby, of San Francisco, the leading spirit in pharmaceutical organization, teaching and writing on the Pacific Coast, and a former president of the American Pharmaceutical Association; A. P. Sharp, whose retail store at Baltimore was the beginning of Sharp & Dohme's immense business; George J. Seabury, of New York, a successful manufacturer and prominent association man and writer; G. G. C. Simms, of Washington, for a long time prominently identified with pharmacy at the capital, and a former president of the National College of Pharmacy; J. B. Moore, of Philadelphia, a successful retired pharmacist and contributor to the pharmaceutical press; William Jauncey, a leader in the affairs of the Chicago Veteran Druggists' Association; J. H. Redsecker, of Lebanon, a former president of the Pennsylvania Pharmaceutical Association; T. S. Wiegand, librarian of the Philadelphia College of Pharmacy; Dr. Susan Hayhurst, of Philadelphia, the first woman (1883) graduated by the Philadelphia College of Pharmacy; W. J. M. Gordon, of Cincinnati, first a retailer and then a manufacturer, and a former president of the American Pharmaceutical Association; C. H. Gaus, of Albany, first secretary of the New York State Pharmaceutical Association, three times mayor of Albany, and at the time of his death State controller; and C. O. Rano, of Buffalo, a former president of the New York State Pharmaceutical Association, and secretary of the Erie County Board of Pharmacy.

1910—C. S. N. Hallberg, of Chicago, teacher, writer, and association man; Louis Dohme, of Baltimore, once a drug clerk and at the time of his death president of Sharp & Dohme; P. C. Candidus, of Mobile, first president of the Alabama Pharmaceutical Association and president of the Alabama Board of Pharmacy from its creation in 1887 to his death, and

first honorary president of the American Pharmaceutical Association; J. W. Colcord, of Lynn, Mass., one of the organizers of the Massachusetts Pharmaceutical Association and of the National Retail Druggists' Association; A. Kiefer, first a retailer and then a wholesaler, and one of the organizers of the National Wholesale Druggists' Association; Robert W. Johnson, of New Brunswick, who left the retail business to gain fame and wealth as a manufacturer; E. W. Fitch, of Jeffersonville, Ind., a veteran who was for many years manager of the New York branch of Parke, Davis & Co.; and J. F. W. Meyer, of Fort Wayne, Ind., president of the Meyer Brothers Drug Company.

This list could be extended to a length which would preclude its publication here, but only a few names of the better known have been included in it.

The press, it might be noted in passing, has suffered severe losses in the death in 1902 of Dr. Frederick A. Castle, of New York, who for many years was editor of the *American Druggist* while Dr. Charles Rice was its associate editor; in 1904, of Dr. Frederick Hoffmann, a scholarly German who founded the New York *Pharmaceutische Rundschau*, and of Dr. Gustav Pfingsten, for a long time the capable and esteemed editor of the New York *Deutsch-Amerikanische Apotheker-Zeitung*; in 1906, of Charles E. Ward, of Denver, editor of the *Rocky Mountain Druggist*; in 1907, of Dr. Frank L. James, editor of the *National Druggist*, who was one of the most versatile scholars and accomplished writers that ever graced a drug journal sanctum; in 1909, of A. C. Wooton, a former editor of the London *Chemist and Druggist* and a profound student of pharmaceutical history, ancient as well as modern, and, in 1910, of Benjamin Lillard, founder of the *Practical Druggist*; and of Newlands Hayes, founder of the *Retail Druggist*. Prof. Ebert and Mr. Colcord had been editors, and Profs. Searby and Hallberg were cut down while still guiding the destinies of two pharmaceutical publications, but these four belonged to pharmacy at large rather than to any restricted field of pharmaceutical endeavor.

While this hurried retrospect is altogether inadequate, it has already exceeded the length to which its use here should have confined it. Of course, it is not offered as covering the ground, but is merely given to stimulate a little thought on the part of those who wish with us to study the marks of time.

Happiness in Daily Toil.

Great love and marked success go hand in hand—provided the love is for the thing that leads onward and upward. The chances are against the success in the drug business of a clerk who does not love that business; and the less such a one succeeds the less he will love the business. That man is poorly paid, no matter what his salary, who does not feel rewarded by seeing the growth, the amplification, the development of what he helps to create. Increasing trade as a result of his efforts is a source of pride to the

clerk who is destined to become a successful proprietor; a cleaner store, more attractive windows, improvement in the advertising, or a better kept-up stock is also a cause of gratification for him. The man who works solely for wages will probably never get any more than wages, while his fellow-clerk who works for love of the work will in time become the junior partner and "fire" his former co-laborer, if the "old man" has not already relieved him of this disagreeable task.

Can a mother be paid in coin for the tender care she gives to her child? Can such tender care as a mother gives to her child be purchased for mere wages? The answer to the two questions is the same and is obvious. While it is a far cry from maternity to commercialism, human nature is much the same in mothers and in business men, and while the love of the former for their offspring is the highest form of that passion, the business man, be he proprietor or clerk, who does not feel the quickening influence of some kind of love in his daily work is as much to be pitied as would be the mother who considered the attention she bestowed upon her child as simple drudgery. And the work of such a man probably fares about as badly as would the child of such a mother.

When a man applies for a position which requires a little more than that its occupant shall be "on the job" from eight to five or from seven to eleven, and the first question he asks is, What is the pay? he probably is not the best man for the place. He expects all his pay in money, and probably intends to do no more than just enough to get this pay. A drug clerk applied for a position in an office. A man to fill the position acceptably would have to put a good deal of himself into the work, which consisted of more than adding of figures or the copying of notes or other mere routine effort. He stated that he was receiving a certain salary as a clerk and could not afford to make a change unless he could "better himself." The man with the office position to be filled was offering less than the figure named by the clerk, and so dismissed him with polite regrets, remarking to an associate later that the clerk who was looking simply for the salary could not fill the position anyhow. The place was offered to another drug clerk. He, too, was receiving more than the salary named, but the work appealed to him and he undertook it. He "made good." His salary was increased from time to time and is now more than double that of the average drug clerk, in real money, to say nothing of the pay he gets in the shape of seeing his efforts produce something worth while. Of course such a man would have received that kind of pay even had he remained a drug clerk, but probably to not the same extent.

There is perhaps no truer saying current in business circles than "Get happiness out of your work or you will never know what happiness is." The multi-millionaires who stick to business do not do this because they need the money, but because they have found a game which they love, and they do not care to stop playing it.

STANDING BY A PRINCIPLE once cost an employee of Stephen Girard his job, according to a story which was current years ago. A young man in the employ of the great merchant was told to do certain work on the Sabbath. He replied he could not work on that day, as it was against his religious principles. Girard, who took little stock in the religion of the time, told the young man he would have to work on this particular Sunday or lose his place. The young man did not work on that particular Sunday or on any other one and so did lose his place. Some time afterward a friend of Girard's asked him if he could recommend some honest young fellow for a position of trust, and Girard recommended the young man who rather than sacrifice a principle had lost a position which he much needed. Whether the Girard story is true or not, and it is by no means an improbable one, the following we can vouch for: Not long ago a large manufacturing concern refused to accept some machinery it had ordered, on the ground that it was not up to specifications. The maker of the machinery insisted that the order had been filled properly, and demanded that he be paid. The large manufacturer detailed one of his mechanical engineers to go over the specifications and machinery to ascertain where the trouble lay. The engineer reported that the fault was in the specifications, which had been prepared in the office of the large manufacturer. "This report is no good to us," said his employer. "I am sorry," replied the engineer, "but you sent me to ascertain the facts, and here they are; if they are not what you want the blame certainly does not rest upon me." A short time thereafter the American rights to make certain machines in use abroad were offered to the large manufacturer at a price he was willing to pay, provided the machines would do what their owner claimed for them. He decided to send one of his own men over to examine the machines at work, see just how they were made and get copies of the drawings and specifications which would enable him to duplicate them. As a good deal of money was involved it was necessary that the man sent should be one who could not be "influenced" by the foreign manufacturer to make a more favorable report than the facts warranted. He sent the engineer who had made the other report mentioned. Sometimes a journal finds it necessary to take a stand on a question of principle which may seem at the time to some of its readers to be opposed to their interests. It may irritate them for the time being to see a journal which they help to support, expressing views which they consider contrary to their temporary welfare, but down in their hearts they feel a respect for that journal which would be utterly lacking were it to be guided by one policy this month, another next month, and a different one some other time. The man who has principles and lives up to them, even when he might turn an extra penny or two by making a slight sacrifice of the right, is the man who in the long run will have the respect and confidence of his neighbors, which, after all, are more valuable business assets for either a man or a journal than money made by means which preclude them.

THAT COLLEGES OF PHARMACY obtain money from students by false pretenses has been charged more than once, the reasoning being that the professors and others interested in colleges cause a high standard to be fixed for those who obtain license to engage in the drug business, so that they are compelled or almost

compelled to go to college in order to pass the examination to obtain such license, and then, when they are in business, find that they do not need what they were compelled to learn. The reasoning is faulty in many particulars, and will not hold at all, yet there is just enough truth in part of it to make it worth attention. If a man goes into the drug business as a mercantile pursuit, he does not need a great deal of what he had to learn at college or pass an examination on when he went before the board; and if he goes into pharmacy as a profession he will find that his college of pharmacy education—unless he was extremely fortunate in the selection of his college—is woefully inadequate to fit him for performing some of the bacteriological and other high-class work which physicians and the public may reasonably expect a “graduate,” or anyhow, a “doctor,” to do. While in this country a drug store and a pharmacy are supposed to be one and the same thing, in Europe they are very different things, and it has been prophesied that as the work of scientific pharmacy becomes more scientific and the business of commercial drug dealers becomes more commercial, a difference between drug stores and pharmacies will be established by law in this country. When that is done, and maybe before it is done, there will be a demand here, on the one hand, for colleges which will take young men and train them in what they should know to become druggists, and, on the other, colleges which will take A. B.’s and B. S.’s and after putting them through a course of study, turn them out as D. S. P.’s—doctors of science in pharmacy—who will take rank with the best of M. D.’s and Ph. D.’s as educated men and trained scientists. When this has come to pass, if it does come to pass, then the D. S. P.’s will work in bacterins, vaccines, antitoxins, and other materials used in preventive medicine, and will devote much of their time to physiological and other forms of organic chemistry, as well as to high-class prescription work, while the ordinary Ph. G. or Pharm. M. will mix and sell drugs under restrictions which will make him more of a merchant than a scientist. This is a word picture drawn from fancy, but, like the reasoning to which reference has just been made, may be worth a little attention.

EXPERT WITNESSES seem to have a limit beyond which even they refuse to go in their efforts to earn the large fees which they are popularly supposed to receive, partly for their services and partly as a balm for their wounded consciences. In commenting on a prosecution for the sale of rotten eggs in this city, one of the daily papers said: “A doctor of chemistry was introduced by the defense and questioned as to the wholesome and nutritious qualities of ‘spot’ eggs. Some headway was made along this line until the prosecuting lawyer put the question: ‘Then, Doctor, the gist of your testimony is that decomposed eggs are fit for food?’ ‘I will not answer that question,’ the Doctor replied, ‘I consider it insulting.’ Hereafter be it known that while experts may be got to testify that shoddy is all wool, that formaldehyde is innocuous, and that pestilential streams are pure, they draw the line at decomposed eggs and avert their noses. Let the prosecutions go on.” Delivering his presidential address to the American Pharmaceutical Association at its Richmond meeting last year, Dean Rusby, of the New York College of Pharmacy, himself an expert whose testimony is not for sale, but one who has had abundant opportunity to become well acquainted

with some of the other sort, said: “I believe that one of the most important considerations to which we can devote attention in this connection, especially at a meeting which is held upon the eve of the assembling of the pharmacopœial convention, is the growing tendency of scientific experts to sell their services as witnesses without regard to the merits of the case, or even the truth of the statements to which they are testifying. It is not a mere question of the commission of naked perjury; there are many ways of giving testimony outside of the witness stand. The real offense is the sacrifice of that sense of responsibility to the cause for which all scientific effort should ultimately be put forth, the establishment of absolute truth. It is deplorable that so great and general a laxity in this direction should have come to exist. . . . What is to be expected from the students of an institution who see the professor to whom they look for an example go upon the witness stand, and, for a fee, swear to the exact opposite of that which he has been teaching them as the truth in his instruction course?”

MEDICINE FAKERS seem to have fallen upon hard times. Between the food and drugs acts, the council on pharmacy and chemistry of the American Medical Association, those newspapers and magazines which refuse to be bound to silence by a “red-clause” in their advertising contracts, or even to accept at all advertisements of nostrums and systems which are fraudulent on their faces, the internal revenue bureau, which dealt a solar-plexus blow to the “tonics” whose chief sale was in prohibition territory, and the pharmaceutical journal which the medical swindlers honor by hating, the makers of fraudulent nostrums have been having an interesting time these past few years. The post-office department has now joined the crusaders in real good earnest. In a recent interview with a representative of the *New York Times*, Postmaster General Hitchcock is reported to have said: “We have landed some of them, I say, but we’re going to land more. And we’re not doing it by cutting them off from the privilege of using the mails, either. It’s going to be the penitentiary for all of them that we can prove our cases against. There is no more of the fraud order remedy for these swindlers. We’ll put them behind the bars. . . . If a man is convicted of using the mails to defraud, he will find that his mails for the next few years will be addressed to the warden of some penitentiary.” The postmaster general was talking about swindlers of the get-rich-quick, gold-miner-in-sky-scraper, fortunes-in-banana-raising kind, but he added: “The department is going after the fake ‘patent’-medicine people, too.” He might have added that the latter are the most despicable of the whole lot, as while the sellers of artistically-printed certificates of stock in worthless mines swindle the healthy, the “fake ‘patent’-medicine people,” as he calls them, swindle the sick and retard or prevent them from doing the one thing most likely to work a cure of their cases.

TO READ THE JOURNALS more thoroughly than ever before should be one New Year resolution of every clerk in the business. As text-books are necessary to the educational success of the student at college, so are the journals necessary to the commercial success of the student of business. In the former he learns that about pharmacy which his teachers require him to know before he may obtain his diploma, while in the latter he may read not only of the progress made in pharmacy, chemistry, materia medica,

and the allied branches of science since the text-books were written, but he may keep in touch with the best thought of the best men in the business regarding the successful conduct of a drug store. Let any clerk who reads this item take the copy of the CIRCULAR that is open before him, cast his eye over its various articles, classify the same under the various headings which he may select for them, and set down under these headings notes of the amount and probable value to him of what he finds in this issue, then multiply the result by twelve. If he does not at once resolve to be a more attentive reader of the journals than he has ever been before he has either been reading them as attentively as he can already, or is—almost—a hopeless case. If the proprietor does not preserve his journals in a neat and orderly shape, the clerk can “make a hit” in a quiet way by stringing them together from month to month, leaving the current issue loose, and at the end of the year binding them, using for this purpose a sheet of heavy manila paper, an awl, a large needle, and a bit of strong twine. Not only will the proprietor appreciate this little evidence of the clerk’s care, but the preserved journals will pay him for his trouble many times over during the year.

ONE CARDINAL POINT IN MERCHANDIZING seems to be overlooked quite frequently by those to whom it is of vital importance, and that is the fact that but for the customer there would be no business. The salesman who does not stop arranging stock or talking to his fellow salesman when a customer enters the store, and put his best services at once at that customer’s disposal, seems to forget that his salary is paid out of money left in the store by customers, and that if this money were not forthcoming he would have to seek a new position. The cashier who counts money while a customer is waiting to pay his check, to the annoyance of that customer, should remember that there would be no money to count should this customer and the others decide not to return. Writing orders for goods, putting the store into shape, dressing windows and lots of other things which salesmen do are very important, while discussing the base-ball game with each other or with loungers is somewhat less so, but no matter what the salesman may be doing he should always remember that if there were no customers he would not be in the store to perform the manifold duties which he oftentimes seems to think of more importance than pleasing the customer.

DISBARRING, as practiced by the legal profession, or its medical analogue, is advocated by one of the medical journals as a means of ridding the healing profession of some of its undesirables. “Unfrocking,” to use a word borrowed from the other of the “three learned professions,” is already practiced by pharmacists. Only a year or so ago a prominent pharmacist and ex-president of his State pharmaceutical association was deprived by the board of pharmacy of his State of his license to practice. His offense, if we remember correctly, was the illegal selling of cocaine. While this is a conspicuous example of pharmaceutical “disbarring,” the disbarring itself is by no means unusual when the provocation is present.

ONE KIND OF DRUGGIST “works” sick people; another kind works for sick people. The former strives to become a nostrum manufacturer on a large scale; while the latter is generally a highly-respected citizen and an ornament to the community in which he lives.

Dangerous Teaching as to Wood Alcohol.

An item was recently printed in one or more journals to the effect that a German physiologist concluded that methyl [wood] alcohol is “somewhat more poisonous than ethyl alcohol, but that pure methyl [wood] alcohol is not sufficiently poisonous to cause danger of injury from the vapor when used in various industries. The accidents which occur in such cases are caused, not by the methyl alcohol itself, but by the impurities which it contains.” This is a very dangerous teaching. It is well known that exposure to the vapor of wood alcohol has caused blindness, and that the purest wood alcohol so far obtainable commercially, has produced blindness and general systemic poisoning when ingested in small quantity, and it naturally carries the same risk to those exposed to its vapor. Knowing this, he would be a fool-hardy man who would experiment with any other supposed to be purer. Incidentally we refer to the suggestion which has been made by various persons that the name wood alcohol should be changed to something eliminating the “alcohol” part—say “wood naphtha,” for want of a better. Many people, probably most people, do not know that wood alcohol and grain alcohol (which latter has long been known simply as alcohol) differ so widely in their properties.

Keeping Solution of Hydrogen Dioxide,

Referring to solution of hydrogen dioxide, a bulletin of the Kentucky Agricultural Experiment Station says that it should “be kept in a dark closet, so that in case of an explosion taking place, there will be no danger from flying pieces of glass.”

The advice is bad, inasmuch as it implies that the solution is to be kept in tightly corked bottles. If it is so kept, in dark closets or elsewhere, it may explode when disturbed, or when the bottle is heated by the touch of a hand, and do damage.

The way to keep solution of hydrogen dioxide is in such manner that there will be no explosion; that is, not closely confined. Then, in case of liberation of much gas, no damage is done. There is no sense in tying the cork in a bottle of the solution; close confinement does not retard the separation of a portion of its oxygen, whereas, it is said that stopping the bottle containing it with a pledget of cotton does have this effect.

Estimation of Morphine by the Codex Process.

Mme. Marcelet and R. Marcelet (*Bull. Sci. Pharmacol. through Pharm. Journ.*) point out an anomaly in the process of estimating morphine in the crude opium and in the powdered substance, where the desiccation is effected at 60° and 40° respectively. In making practical observations they were surprised to find how slowly the water evaporated from the opium at the temperature of 60° indicated by the French Pharmacopœia. The summary of the results shows that the greater part of the water evaporates in the first twelve hours; after sixty hours, the loss of weight is very small; finally, the weight only becomes constant after 122 hours.

English Embrocation.

Make an emulsion of equal parts of diluted acetic acid and oil of turpentine, using two eggs to each pint of the mixture.

Assay of Gelsemium.

BY PROF. L. E. SAYRE.

It has been suggested by different pharmacists that among the assays in the United States Pharmacopœia IX, should be found one for gelsemium and its preparations.

The writer has previously recommended the Webster process for gelsemium as the one likely to prove most efficient.* Some tests were made of this process, which were the basis for this recommendation. During the past few months this study has been taken up again and the writer desires to bring before those who are interested in assay processes, the results of this investigation.

The process suggested for the assay will be given in detail, the fluidextract being used as an example.

ASSAY OF FLUIDEXTRACT OF GELSEMIUM.

Fluidextract of gelsemium. . . . 10 c.c. (mils).

Chloroform,

Ether,

Alcohol,

Distilled water,

Tartaric acid,

Potassium hydroxide solution (20 per cent. KOH),

Half-normal sulphuric acid, V. S.,

Hundredth-normal sulphuric acid, V. S.,

Hundredth - normal potassium hydroxide, V. S.,

Cochineal, T. S. . . . of each, a sufficient quantity.

Transfer 10 c.c. (mils) of fluidextract of gelsemium by means of a graduated pipette to an Erlenmeyer flask of about 100 c.c. (mils) capacity. To this add 1.5 grammes of tartaric acid; agitate and separate the liquid from the precipitate by filtering through a filter paper into a graduated flask of 100 c.c. (mils) capacity, washing the precipitate with alcohol. Add sufficient alcohol to the filtrate to make 100 c.c. (mils); shake well and set aside for a few minutes. Filter again, if necessary, and transfer 50 c.c. (mils) of the alcoholic filtrate by means of a graduated pipette to a shallow dish of six-inches diameter, and evaporate it to dryness with the aid of a water-bath rotating the contents of the dish occasionally, and especially toward the end of the evaporation, so that the resulting extract may cover a large portion of the basin. Add 10 c.c. (mils) of half-normal sulphuric acid, and rotate the liquid in the dish until the extract is dissolved or disintegrated; set aside for two minutes. Filter the liquid through a small, firmly-packed pledget of absorbent cotton, previously washed with water, into a separator of about 150 c.c. (mils) capacity, rinsing the evaporating dish with two successive 5 c.c. (mils) portions of water, stirring to disintegrate the insoluble substances. Transfer the rinsings to the separator by filtering through this same pledget of cotton.

To the separator add 20 c.c. (mils) of a mixture of 16 c.c. (mils) of chloroform and 4 c.c. (mils) of ether; add 4 c.c. (mils) or a sufficient quantity of 20 per cent. solution of potassium hydroxide and shake vigorously. When the fluids have separated—first drawing off the chloroform-ether liquid into a second separator containing 15 c.c. (mils) of distilled water,

and after agitating as before—draw off the chloroform-ether liquid into a third separator containing 15 c.c. (mils) of distilled water; agitate, again transfer the chloroform-ether liquid through a chloroform-washed pledget of cotton into a fourth separator of about 150 c.c. (mils) capacity. Repeat the extraction with three successive portions of 20, 15 and 15 c.c. (mils), respectively, of the chloroform-ether solution, which finally collect, after washing as before, into separator number four. To the bulked ethereal-extracts add an excess of hundredth-normal sulphuric acid (20 c.c. [mils]) and shake thoroughly. Allow the liquids to separate and draw off the chloroform-ether layer. Add to the aqueous acidulated layer a few drops of cochineal T. S. and titrate back with hundredth-normal potassium hydroxide solution until the aqueous solution just turns violet. Subtract the number of cubic centimeters (mils) of hundredth-normal KOH taken, from the number of cubic centimeters (mils) of hundredth-normal sulphuric acid (20 c.c. [mils]) taken, and multiply the remainder by 0.00408, and the product by 20, which will give the weight in grammes of alkaloids contained in 100 c.c. (mils) of the fluidextract of gelsemium.

During the process of washing the chloroform-ether solvent with distilled water, it was thought, perhaps, that a small quantity of the alkaloids was taken up by the distilled water. To confirm this the aqueous solution was tested with Mayer's reagent and gave positive results.

An attempt was made to eliminate this loss by using a process identical with the one given, except a saturated solution of sodium chloride was used in place of distilled water in washing the chloroform-ether solvent: On testing this saturated solution of sodium chloride afterward for alkaloids with Mayer's reagent, negative results were obtained.

However, when making the final titrations with hundredth-normal potassium hydroxide solution, the results were practically the same as those obtained by the original process, showing that the loss sustained while washing the chloroform-ether solvent with distilled water, if any, was so small that it made no difference in the final calculations.

Besides the Webster process for assaying gelsemium, other processes were tested to compare with the Webster process.

One quite similar to Farr and Wright's (Lyons, *Assay of Drugs*, pages 161 to 163,) was experimented on, which gave uniform results, but, unfortunately, is too complicated for ordinary usage; and it might be added that the results obtained by this process were lower, as will be seen in the calculations tabulated below, than the results obtained from the Webster process.

The process when applied to the fluidextract of gelsemium is identical with the Webster process up to the point where the aqueous solution containing the alkaloid is made alkaline.

The aqueous solution is rendered alkaline with ammonia and then shaken out with three portions of chloroform, (15, 10 and 10 c.c. [mils]). The chloroform is then washed with four successive portions (5 c.c. [mils]) of water containing about 1.5 per cent. of sulphuric acid. The acid solutions are united, an excess of Wagner's reagent is added, and the mixture set by until the precipitate has subsided, leaving the fluid clear.

The fluid is decanted through a small filter, the fil-

*Proceedings of the American Pharmaceutical Association for 1907, page 357.

ter washed with a little water, and then 5 c.c. (mils) of a 5 per cent. solution of sulphurous acid is passed through it into the flask containing the alkaloidal precipitate. The flask is allowed to stand with occasional agitation until the alkaloidal periodides have been wholly decomposed, as shown by the absence of dark-colored particles. The solution is then filtered, the flask and filter are washed, first with 2 to 3 c.c. (mils) of sulphurous acid, then with water until the washings are no longer precipitated by Mayer's reagent. The filtrate and washings are made alkaline with ammonia and shaken with three successive portions of chloroform, (15, 10 and 10 c.c. [mils]), the chloroform evaporated, the residue dried at 100°C., and weighed.

RESULTS OBTAINED FROM ASSAY OF FLUIDEXTRACT OF GELSEMIUM.

1 c.c. (mil) of hundredth-normal sulphuric acid is neutralized by 0.00408 grammes of alkaloid present in gelsemium.

This equivalent 0.00408 is given in Lyons' Assay of Drugs, page 55.

WEBSTER PROCESS.

Total Alkaloids in 5 c.c. (mils) of Fluidextract of Gelsemium.

	First Assay.	Second Assay.
Sample 1.....	0.0082 grammes.	0.0086 grammes.
Sample 2.....	0.0048 grammes.	0.0042 grammes.
Sample 3.....	0.0060 grammes.	0.0066 grammes.
Sample 4.....	0.0104 grammes.	0.0097 grammes.
Sample 5.....	0.0191 grammes.	0.0193 grammes.

PROCESS SIMILAR TO FARR AND WRIGHT'S (GRAVIMETRIC).

Total Alkaloids in 5 c.c. (mils) of Fluidextract of Gelsemium.

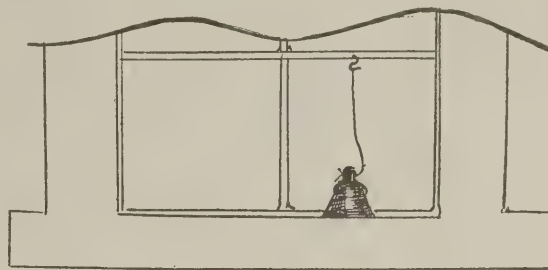
	First Assay.	Second Assay.
Sample 5.....	0.0135 grammes.	0.0132 grammes.
Same as above.		

Owing to the fact of our connection with the State Drug Laboratory for the analysis of drugs under the pure food law, it has been frequently necessary for us quickly to separate the grossly sub-standard material from the standard. We have found that this can be done best by a short and rapid process; a process that will give at least approximate results. For this purpose we have much respect for Mayer's reagent in estimating alkaloids. We quite agree with Dr. Lyons that the precipitate produced by this reagent is of sufficiently constant composition to be available for purposes of gravimetric estimations. In the case of gelsemium, when we have a mixture of colorless and colored alkaloids to deal with, the process of precipitation by Mayer's reagent is especially advantageous. For this purpose the alkaloidal solution must be brought to a certain dilution, the alcohol driven off the preparation by a low heat, and the solution acidulated. The reagent is then added in excess, the precipitate is allowed to stand several hours before collecting, is washed carefully, dried at 100° C., and weighed. By this method we have been able to obtain very concordant and reliable results. If the analyst establishes for himself the relation between the weight of Mayer's reagent precipitated (obtained from solution of uniform dilution) and the weight of combined alkaloid of gelsemium, which can be done by the more elaborate processes, he can safely employ the Mayer's reagent as above indicated and obtain reliable results concerning the alkaloidal strength of gelsemium preparations.

Drugs to Prevent Burglary and Hold-Ups.

By YOUNG SLEUTH.

Not long since drugs defeated the plans of burglars to rob the safe of a bank in South Dakota. Similar incidents of a like nature are on record. In the case of the bank, the cashier had placed a bottle of formaldehyde solution between the inner and outer doors of the safe. When the exterior door was blown open the bottle containing the drug was broken and the fumes quickly spread throughout the room. Evi-



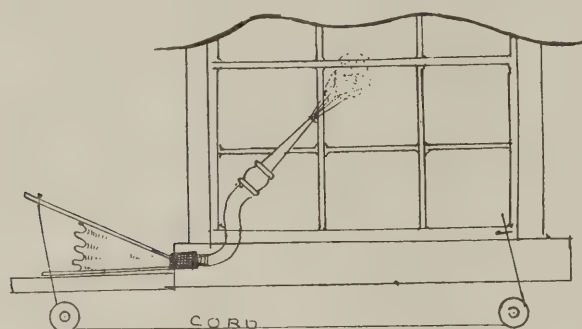
Device Intended to Prevent Burglary.

dently these were of sufficient strength to cause the burglars alarm; perhaps they thought the heavy volume of formaldehyde vapors was the advance of some kind of a trick explosion that would annihilate them. Anyhow they fled. Not long after this event other owners of property adopted like plans for the protection of safes, stocks of goods, apartments and other places.

The use of drugs to prevent persons from interfering with property that does not belong to them has been in vogue a long time. In recent years some attention has been given to the traffic in anti-burglar drugs in the drug stores. While there is no special department for handling drugs for use for burglar protection, almost any druggist can put up a compound which, if released at the right time, will produce blinding or suffocating fumes to the embarrassment of the burglar who "monkies" with the same. The drug for use in this connection is put up in a strong bottle in which it may be kept for a long time out of the way of harm. A small ink bottle may be used to advantage because of its comparatively large bottom which prevents it from upsetting. In such a container the formaldehyde solution, ammonia water, or other drug or chemical may be confined by means of a cork. Then the cork may be provided with a string and the string may be attached to a part of a window sash, as shown in figure 1. The bottle should be secured with wire or cords to the window sill, so that when the intruder lifts the window to enter, the pull of the cord cannot lift the bottle, but only draw the cork. As soon as the cork is thus pulled forth, the escaping fumes of the drug are liable to come squarely into contact with the face of the burglar. It is not likely that any permanent injury will result, unless the thief in his astonishment leaps to the earth and so receives a hard bump. The chances are that the blast of fumes in his face will cause him to give up the job or make him sneeze and create a noise which will arouse the occupants of the house.

Sometimes, instead of fuming drugs being requested for the purpose under discussion, the drug clerk is asked to put up a pair of bellows containing

the necessary attachments for shooting forth a blast of insect powder into the eyes of the intruder who is trying to break and enter. Figure 2 illustrates the mechanical construction of such a device. A common pair of insect powder blowing bellows is furnished with its nozzle arranged as shown in the drawing. The bellows are arranged on the inside of the window frame as shown. A cord is attached to the lower part of the window sash. This cord passes over two grooved wheels below, thence to the upper part of the bellows. When the burglar pries up the sash the movement of the same draws the cord and the cord depresses the bellows and the blast of air blows forth



Automatic Powder Blower to Frighten Burglars.

the powder into the face of the burglar. The latter is supposed then to do his part, which is to flee.

Anyone with a little mechanical ingenuity can easily adapt the devices illustrated to use on doors and elsewhere.

There have lately been an unusual number of "hold-ups" in stores of all kinds, and it behooves managers and salesmen to be on the lookout for the hold-up men. The writer has found that in some cases the thieves managed to get away with the loot very readily. In other cases the salesmen made so much disturbance that the robbers departed without replenishing their supply of cash. There are cases recorded of how quick-witted saleswomen have prevented loss of money through thieves by alert action. Sometimes a quick police call or even the appearance of a watch-dog on the scene will upset the plans of the thief and make him flee. Then again some of the clerks have been able to divert the would-be robber of the cash register by means of ammonia water or acid, and there have been cases in which thefts of the kind referred to have been prevented by the use of red pepper cast into the eyes of the "bad men."

Firearms are dangerous to have about the place. In the old days of the money till one could almost always find a loaded revolver in the drawer. In very many cases in which the till was looted the thief got first hold of the revolver and turned it on the people in the store. Accidents followed the use of the pistol secreted in side places. Hence the firearm has been cut out of the plan of fortification of the cash in most of the stores.

Store robbers used to depend a great deal upon sand-bagging and clubbing in making a raid on money drawers. Threats of cutting and shooting were common. But in these days of advancement in every line, the cash-register thieves work on different plans. Occasionally an out-of-date "bad man" appears on the scene with drawn revolver or stuffed club and attempts to frighten the people back of the counter

into fleeing or giving up the cash. Sometimes he accomplishes his purpose with an unloaded rusty weapon. Then again he does not, but is run off and makes good his escape before the arrival of an officer.

The really up-to-date cash-register robber is a man of genteel appearance, takes his time and carries no weapon of any kind—for to be caught with one would mean incrimination. He depends upon the deftness of his fingers and his mechanical genius. He makes a study of cash drawers and cash registers. He knows the mechanical operation of all the new types of devices for the keeping and registering of cash. He understands salesmen and customers. He waits until his "pal" or some other patron is receiving the attention of the salesman nearest the cash register and then he does some quick work. Even if the bell rings when he opens the drawer, it is seldom that any attention is paid to it, because the bell is sounding every few minutes when the clerks make change. As soon as possible the man scoops out the cash and has been known to get out without being stopped. If detected in the act he simply makes haste and often gets out before the clerks can get him surrounded. He almost always makes a bluff at drawing a revolver if he is chased and this keeps the salesmen and the average civilian at a comfortable distance. Of course if the police are near, his chances of getting free are slim, but that is a chance he is willing to take, and generally it is in his favor.

In order to protect himself from hold-ups, one druggist arranged an old coffee-mill overhead and filled this with pepper. A cord extended from the opening valve in the bottom of the mill to a place near the cash register below. In the event of a hold-up, the clerk, with hands up, could pull the cord, open the valve above and precipitate a cloud of red pepper into the face of the "artist."

Various other plans have been worked out for the safety of the cash drawer. Cash registers have been the means of saving a great deal of money for the proprietors of stores in many ways, but the expert is always in the field. With cash registers it is about the same as it is with bank safes; the bank-safe looter becomes more scientific in breaking into the new devices as the safe makers become more skilled in increasing the resisting power of their output.

Ground Plan for a Strong Article.

Morning.—"But Mac, down the street is selling them for 35 cents; why should I pay you 40?"

Druggist marks his down to 35 cents.

Noon.—Druggist sends a friend down to Mac's with 35 cents to make the purchase. Friend comes back with a grade B, while the druggist's own stock is of grade A.

Night.—Druggist and Mac get together and see how the lying public are making fools of them by playing one against the other, and resolve then and there to be made fools of in this way no longer.

L'Envoi.—Who wouldn't rather be sensible at a profit than a fool at a loss?

German Spearmint Oil.

In addition to l-carvone, Elze (*Chem. Zeit.*) has isolated from the oil of curled mint (*mentha crispata*), phellandren and dihydrocumene alcohol, the latter probably being present in the oil as acetic ester. A small amount of valerianic acid is also present.

Saffron and Its Adulterants.*

BY EUGENE COLLIN.

Saffron consists of the upper part of the style, and the three stigmatic branches of *crocus sativus* L, a small bulbous plant, native to Persia. It is widely cultivated in France, Bavaria, Austria, Italy, and in Spain especially in the provinces of Andalusia, Murcia and Valencia. In France the cultivation is localized in the departments of Seine-et-Marne, Eure-et-Loir, and Loiret. The saffron collected in these parts of France is generally called safran de Gâtinais. Saffron is also gathered in smaller quantities in Charante near Angoulême and in Vaucluse near Avignon.

Three kinds of saffron are chiefly marketed [in France] Austrian saffron, French saffron, and Oriental saffron. Austrian saffron, which is considered the best, is used only to a small extent. It consists entirely of the stigmas of *crocus sativus*, and possesses a uniform red-brown or purplish-brown color. In French saffron, the stigmas are accompanied by



Figure 1. Stigma of Saffron and its Substitutes (natural size).

A, stigma of *crocus sativus*; B, flower of *carthamus tinctorius*; C, flower of *cynara cardunculus*; D, semi-floret of *calendula officinalis*; E, flower of *lyperia crocea*; F, stamen of *crocus sativus*.

more or less, long pieces of the style, which, being less colored, give the commercial product a varied color, red-brown mixed with yellow. It is derived from the same plant as the Austrian saffron and is used very widely. The Oriental saffron, which is much less prized, is a moist, sticky, red-brown mixture of stigmas, parts of styles, corollas, and pollen grains of *crocus vernus*. It possesses a much weaker odor than the Austrian and French varieties. Spain produces several kinds of saffron, which vary greatly in quality, the better sorts resembling the saffron of Gâtinais; the inferior kinds, which are varnished with fatty substances, should be rejected.

DESCRIPTIONS.

Commercial saffron is in the form of a loose mass of thread-like stigmas dentated at the upper parts, which are widened in a funnel like shape (figure 1, A). In an unbroken state the stigmas are united in threes at the upper end of the style, which is colored red at the top and yellowish-white at the lower part. Saffron is greasy to the touch, elastic, flexible and

possesses a dark orange-red color. It has a peculiar aromatic odor and a spicy bitter taste.

The cross section of the stigma of saffron (figure

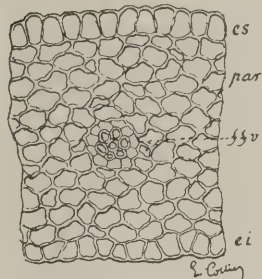


Figure 2. Cross-Section of a Stigma of Saffron (250 diameters).

es, upper epidermis; par, parenchyma; ffv, fibrovascular bundle; ei lower epidermis.

2) shows a parenchyma (par) formed of irregular polygonal cells, with rather thin walls and filled with an orange-red coloring matter, easily soluble in water. This parenchyma is furrowed by a few fibrovascular bundles and covered on both sides by an epidermis (es, ei) consisting of a row of tabular cells slightly elongated perpendicularly to the surface of the stigma. The epidermal cells are protected by a thin cuticle. Farther down they show towards the middle of their exterior wall a wart-like projection, which makes the two edges of the cross section appear slightly sinuate. In looking at the arrangement of the epidermis from the front, this projection (pr, figure 3) can easily be distinguished; it has different appearances. The epidermal cells exhibit when viewed in this manner, a polygonal form and are elongated parallel to the direction of the stigma. The upper part of the stigmatic branches is trimmed with numerous cylindrical papillæ, rounded at the top and three or four times longer than wide.

The style has a structure identical with that of the stigma; it is furrowed by a small fibrovascular bundle but contains much less coloring matter than the stigma. Its epidermal cells are very long, and they have thin, slightly curved walls (EST, figure 4).

On spreading out under the microscope a small piece of the stigma of saffron, almost always one or more pollen grains can be seen. These are very thick (0.12 mm.), and round, and have a thick smooth covering (po, figure 4).

Commercial powdered saffron is characterized by the following constituents (figure 4):

1. Epidermal fragments of the stigma (ES) consisting of elongated cells, rather regularly super-

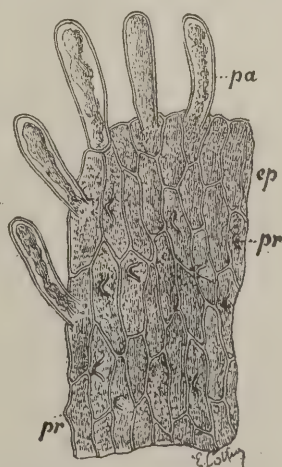


Figure 3. Upper Part of Stigma, Front View.

ep, epidermis; pa, papillæ; pr, protuberances.

posed, all directed in the same way, which is parallel to the length of the stigma; many of these cells are furnished with small protuberances which form a most important element for the identification of saffron. According to the way these protuberances (pr) are viewed, they appear either as cones or as concentric circles; they are less and less numerous and obvious as the distance from the upper part of the stigma increases. The epidermal fragments are at times isolated and at other times still adherent to the subjacent tissue, which is always furrowed by tracheæ.

*Translated from the *Annales des Falsifications* by THE DRUGGISTS CIRCULAR.

2. Irregular parenchymatic fragments, rather uncommon, representing the transverse section of the stigma (*ST*); they are formed of seven to

As being also of great importance, I may mention that powdered saffron should not contain starch, crystals, woody fibers, spotted ducts, sclerotic cells, glandular or protective hairs, secretion canals, or secretion cells.

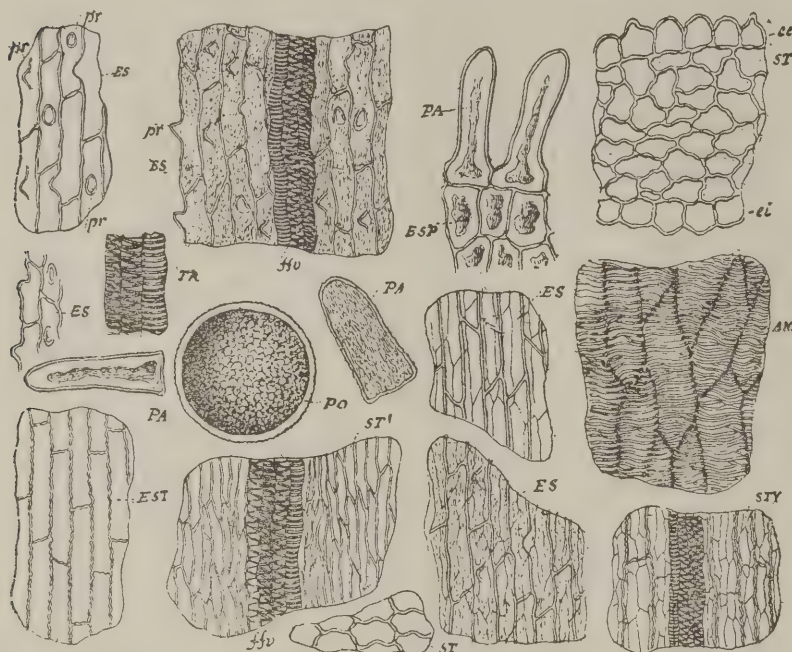


Figure 4. Anatomical Constituents of Powdered Saffron (250 diameters).

ANT, fragments of the stamens; *ES*, epidermis of the stigma with protuberances (*pr*); *EST*, epidermis of the style; *ESP*, edge of the stigma; *ST*, transverse fragments of the stigma; *PA*, papillae of the stigma; *PO*, pollen grains; *ST'*, longitudinal fragments of the stigma; *STY*, fragments of the style; *ffv*, fibrovascular bundles.

eight layers of irregular cells, bordered on both sides by a row of epidermal cells (*ee*, *ei*). More numerous are the longitudinal fragments of the stigmatic tissue (*ST'*). They consist of the parenchyma of elongated cells, almost always furrowed by a small fibrovascular bundle (*ffv*).

3. Elongated papillae (*PA*) arising from the uppermost and enlarged part of the stigma, which appear like the fingers of a glove, and are either isolated or grouped and still adherent to small fragments of the stigma (*ESP*).

4. Some pollen grains (*PO*), round and very large, measuring 60 to 70 microns and enclosed in a rather thick skin.

5. Fragments of the style, consisting at times of its epidermis (*EST*), and again, of the epidermis and the subjacent tissue (*STY*). The epidermis of the style differs from that of the stigma in the sinuosity of the cell-walls. The subjacent tissue differs from that of the stigma in the absence of yellow coloring matter in the lower part of the style.

6. Fragments of the anthers (*ANT*), which are quite uncommon in good Gâtinais saffron. These consist of long dotted cells, with walls provided with transverse reticular and almost parallel thickenings, which give the cells a characteristic appearance.

NORMAL IMPURITIES IN SAFFRON.

Like all natural products, saffron is seldom absolutely pure. The exotic saffron especially often arrives in a very contaminated condition owing to the lack of care during the gathering of it; there are present at times fragments of straw, of manure, of herbs, and of the leaves, corollas, stamens, and pollen grains of crocus. Sometimes various odd substances are found, which are present on account of the negligence of the workmen employed in the sorting of the saffron. Before being put up for sale, the saffron should be freed of all foreign material and the commercial product should not contain other than the normal impurities, that is, pollen grains and a few stamens, which on account of their thinness, may easily be overlooked.

The presence and the amount of pollen grains can easily be discovered by the amount of dust which is produced when the saffron is tossed on a piece of white paper. The presence of stamens is shown by the existence of yellowish filaments, which differ from the styles in their uniform color, their



Figure 5. Powdered Saffron Containing an Abnormal Proportion of Stamens (120 diameters).

ANT, fragments of anthers; *ES*, epidermis of the stigma with its protuberances; *ESP*, upper end of the stigma; *EST*, epidermis of the style; *ST*, transverse fragments of the stigma; *PA*, papillae of the stigma; *PO*, pollen grains; *ST'*, longitudinal fragments of the stigma; *STY*, fragments of the style.

greater width, their irregular contour and their shriveled form. When thrown into water the stamens appear as elongated sacs, rounded at the top and forked at the base, measuring 20 to 22 mm. in length, and 3 mm. in width, and divided into two distinct compartments. Almost always they are provided with a part of their fillet.

In powdered saffron the presence of stamens is revealed by the existence of membranous fragments composed of polygonal cells, which are all elongated in the same direction and furnished with distinctly parallel and quite characteristic thickenings (*ANT*, figures 4 and 5). While very rare in Gâtinais saffron, this impurity is very common in Spanish saffron. From the yellow color of the latter the proportion of stamens can easily be estimated. It is more difficult to determine the amount of stamens in powdered saffron, but a saffron which shows a larger amount of anthers than are apparent in figure 5, can safely be considered as a commercially impure product. The microscopic reproduction, figure 5, can be used with advantage as a control.

Some brands of saffron are imperfectly cleansed, or mixed with remains of the sorting, or weighted with a product called in commerce *saffron jaune de Salonique* (yellow Salonica saffron), which is nothing but the dried stamens of saffron.

The presence of a large proportion of stamens does not necessarily involve the presence of a large quantity of pollen grains. The stamens are very friable; they dry up very rapidly and release the pollen grains which, recovered by successive siftings, form a commercial by-product of saffron. Often, however, they are used again for weighting powdered saffron.

ASSAY OF SAFFRON.

The analyst who is called upon to examine saffron should at first ascertain the weight of the product under examination: fifty filaments, each representing a part of the style with the three stigmas weigh about 337 milligrammes.

Saffron should be soft and elastic without being sticky. When pressed between the fingers, it should not adhere to the latter. It should cut without resistance, should not have a horny consistence, and when broken should not snap with a sharp noise.

Thrown into a glass of water, saffron should remain at the surface of the liquid and should not lose its shape. It should impart to the water its beautiful golden yellow color, without rendering the liquid turbid. It should not deposit any insoluble powder.

Unless it is of Austrian origin or consists entirely of stigmatic branches, saffron should not have a uniform color in its whole length, because the lower part of the style has a much paler or yellowish color.

Saffron should contain only a very small amount of stamens and pollen grains.

When treated with concentrated sulphuric acid, saffron, both whole and powdered, should assume an indigo-blue color turning to purple and finally to

brown. Placed on the tongue, saffron should not exhibit a salty or sugary taste. Dried at 100° C. it should lose at most 14 per cent. of its weight. On incineration it should yield not more than 6 to 7 per cent. of white, non-fusible ash.

ADULTERANTS.

On account of the high price of saffron it has always been subjected to many kinds of sophistication. These consist in substituting wholly or in part flowers or fragments of flowers, which when dry and shriveled may have a faint resemblance to saffron. Inasmuch, however, as the natural color of these flowers is entirely different from that of saffron, they are colored artificially with some anilin dye. Very frequently saffron and its substitutes are

mixed with various substances which are added to increase the weight.

The principal vegetable substitutes for saffron are the flowers of *carthamus tinctorius* (*B*, figure 1), *cynara scolymus*, *cynara cardunculus* (*C*), *scolymus hispanicus*, *calendula officinalis* (*D*), *lyperia crocea*, and *arnica montana*; the petals of the peony, the poppy, *pulicaria vulgaris*, and *punica granatum*; the stigmas of maize, and of other species of crocus; the flowers of various cyperaceæ; fragments of various colored algæ, such as *fucus amylaceus* and others; powdered capsicum, *Pernambuco* wood, *Campeachy* wood, red saunders and turmeric.

Among the other substances with which saffron is adulterated are sugar, glucose, honey, barium sulphate, borax, sodium nitrate, potassium nitrate and potassium boro-tartrate. Among others the following dyes are used for coloring the substitutes of saffron: The salts of dinitroresol, safranin, fuchsin,

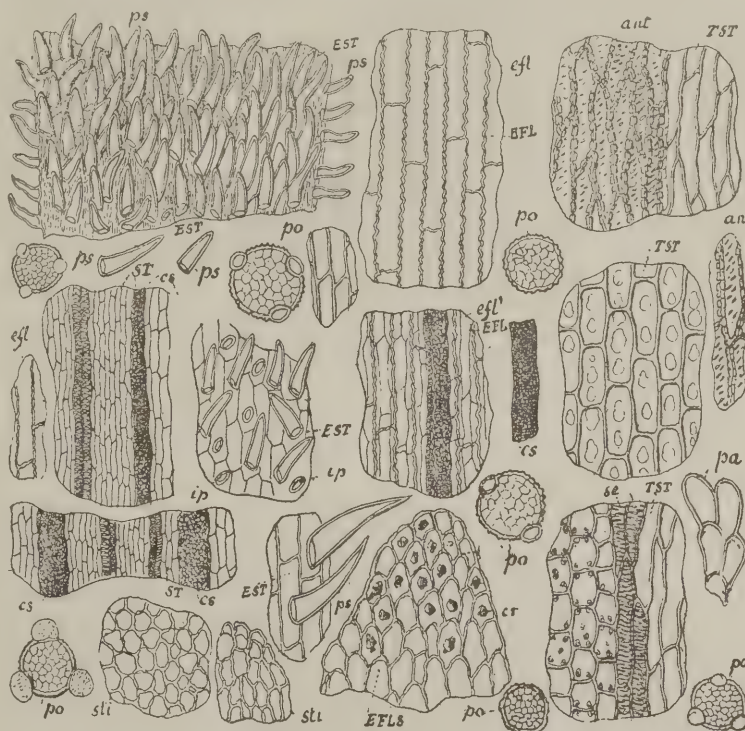


Figure 6. Constituents of Powdered *Carthamus Tinctorius* (250 diameters).

EFL, epidermis of limb of the corolla; *ant*, fragments of the anthers; *cs*, secretion canal; *EFLS*, epidermis of the top of tooth of corolla; *cr*, crystals; *EST*, epidermis of the style with protective hairs (*ps*); *ip*, site of the protective hair; *pa*, papillæ of the stigma; *po*, pollen grains; *sti*, fragments of the stigma; *ST*, fragments of the style with secretion canals (*cs*); *TST*, fragments of the staminal tube.

crysoidin, Martius yellow, quinolin yellow, naphthol yellow, orange II, and brilliant yellow.

I shall hereinafter describe as briefly as possible the characteristics which permit the detection of these adulterants, and I shall lay stress particularly on those which are most frequently used for sophistication.

CARTHAMUS TINCTORIUS.

The florets of safflower (*B.* figure 1), also known as bastard saffron, or false saffron, are supplied by *carthamus tinctorius*, of the *synanthereæ* family. They consist of a long thread-like tube which unrolls itself in a limb with five linear divisions. From the orifice of this tube the hollow and doubled cylinder emerges, formed by the united anthers, into which passes a thread-like style, thickened towards the top.

The florets of safflower have a beautiful orange-red color, localized in the limb. The pigment of these flowers consists of two coloring principles, a yellow one soluble in water, and a carmine-red one, which is insoluble in water and in oil, and which remains in the cellular web.

Powdered safflower chiefly is used for adulterating saffron. It is one of the sophistications which I most often have had occasion to identify. The very peculiar way in which the powdered safflower behaves towards water, which cannot remove from it the carmine-red coloring matter, suffices to indicate the presence of this substance in saffron. This important sign is verified by the comparison of the anatomical characteristics.

The chief elements in the determination of this powder are—

1. The presence of very numerous round pollen grains (*po*, figure 6), colored golden-yellow, covered with small hairs and furnished with three or more or less distinct pores. These pollen grains are smaller than those of saffron and measure 30 to 40 microns in diameter.

2. Epidermal fragments of the style (*EST*), characterized by a profusion of small hairs (*ps*) which are inserted upon them; many of these hairs, which are very deciduous, are scattered throughout the sample. They are very short, unicellular, conical and more or

less thin at the top. The parenchyma of the style (*ST*) is formed by a thick tissue, furrowed by narrow fibrovascular bundles and by secretion canals (*cs*) of varying sizes, and filled with a brown resinous substance.

3. Numerous fragments of the tube and limb of the corolla (*EFL*). The epidermis of these is formed of long, superposed cells, with thin and slightly sinuous walls. The subjacent tissue, which has a carmine-red color, is furrowed by distinct secretion canals and thin tracheæ. Towards the top of the divisions of the corolla, the epidermis takes on a warty form (*EFLS*), and small prismatic crystals can be seen in the cells of the subjacent tissue (*cr*).

4. Fragments of the staminal tube (*TST*) with a very complicated structure. Its component parts, which are always uncolored, assume quite variable forms. The sutures of the stamens are indicated by reticular thickenings (*sc*) which are very distinct. The tissue of the anthers is formed of long cells (*ant*) with thickened and furrowed walls.

FLOWERS OF THE CYNAREÆ.

For adulterating saffron, the flowers of *cynara cardunculus*, *cynara scolymus*, and *scolymus hispanicus* are used. Inasmuch as these flowers in drying lose their natural color, which is moreover never yellow, they are colored artificially with azo dyes.

The flowers of *cynara cardunculus* consist of a five-lobed corolla 12 to

14 millimeters long, ending in a tube twice as long. The lobes of the corolla, united in almost their entire length, are free only at their uppermost end. At the top of the corolla appears the slightly projecting staminal tube, dentate and formed by the reunion of the stamens. In the middle of this stamen tube is a long style, ending in a colored two-cleft stigma.

An adulteration of whole saffron with these flowers can easily be detected by simply immersing the sample in lukewarm water, to which the *cynareæ* yield almost immediately their artificial coloring, which is totally different from that of the stigmas of saffron.

When the flowers of *cynara cardunculus* are reduced to a powder, they show a number of anatomical characteristics by which their addition to saffron can

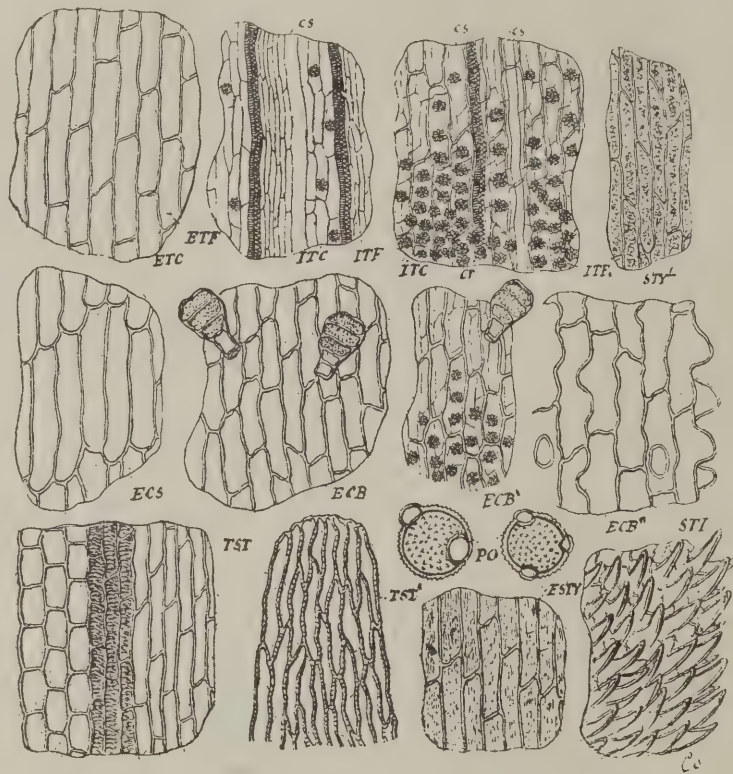


Figure 7. Constituents of Powdered *Cynara Cardunculus* (250 diameters).

ETF, epidermis of the flower tube; *ITE*, inner portion of the tube; *ITF*, portion of the base of tube with its numerous crystals; *STY*, portion of the style; *ECS*, epidermis of the top of the corolla; *ECB*, epidermis near the base of the corolla; *ECB'* and *ECB''*, epidermis of the base of the corolla; *TST*, portion of staminal tube; *TST'*, portion of the staminal tube at the top of the divisions; *PO*, pollen grains; *ESTY*, epidermis of the style; *STI*, portion of the stigma.

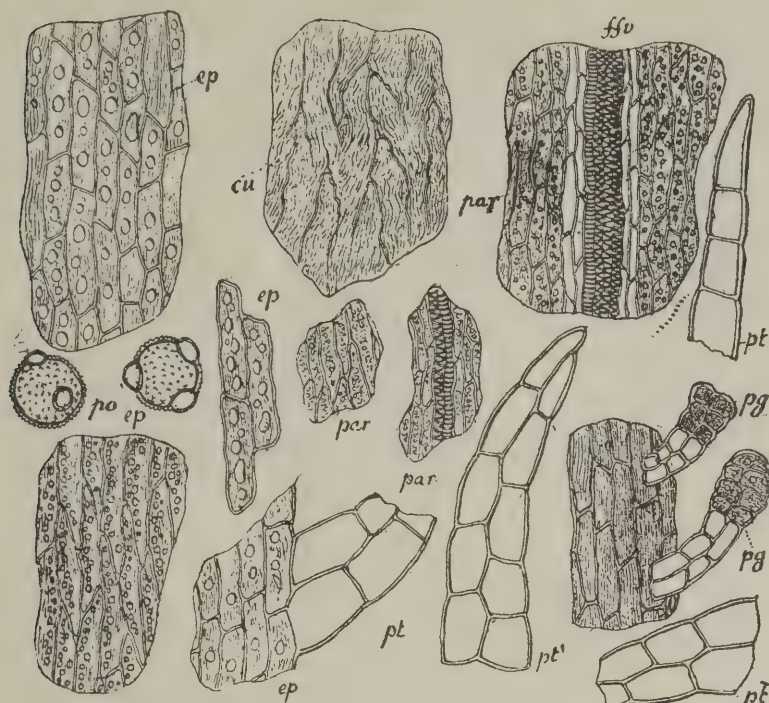


Figure 8. Constituents of Powdered *Calendula Officinalis* (250 diameters).

cu, channeled cuticle; *ep*, epidermis of a semi-floret; *par*, parenchyma of a semi-floret; *pg*, glandular hair; *po*, pollen grains; *pt* and *pt'*, broken protective hairs.

easily be detected. These are (1) numerous tubercular pollen grains showing three distinct pores and smaller than the pollen grains of saffron; (2) secretion canals in the tissue of the corolla, and pluricellular secretion hairs at its surface; (3) very many calcium oxalate crystals located in the lower part of the lobes of the corolla; (4) fragments of the style and the stigmas covered with conical papillæ; and (5) parenchymatic fragments arising from the staminal tube and characterized by the polymorphism of their

cells which have dotted walls or very manifest thickenings.

Notwithstanding the anatomical resemblance to the fragments of safflower, those of the cynaræ can be distinguished from the former by the absence of the red-violet coloring matter which remains in safflower when immersed in warm water.

CALENDULA OFFICINALIS.

The semi-florets of marigold (*calendula officinalis*), also called *fémelle*, are used for adulterating saffron. The corolla of this flower which is drawn out from the outer part of the cup in a little tongue or ligule with four nerves and having a dentate edge at the top, becomes narrower and forms a tube at its lower part and is covered with hairs visible to the naked eye or when viewed with a magnifying glass. When fresh, these florets have a magnificent golden-yellow color, which bleaches out or even disappears altogether during the drying process. When used for adulterating saffron, they are colored with a coal-tar dye.

The adulteration of saffron with marigold can easily be detected. Immersion in lukewarm water will remove the artificial dye and restore the natural shape of the marigold florets, which is totally different from that of the stigmas of saffron. When saffron is sophisticated with powdered marigold, the following constituents are found in the powder: (1) Pollen grains covered with

small points and showing three distinct pores; (2) epidermal fragments formed by striated cells, always containing easily visible oil globules, and (3) frag-

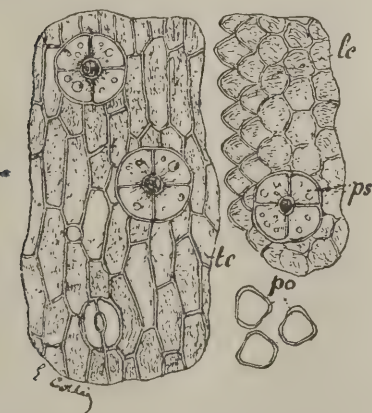


Figure 9. Fragments of a Flower of *Lyperia Crocea* (250 diameters.)

tc, fragment of the corolla tube with two secretion glands (*ps*); *lc*, limb of the corolla; *po*, pollen grains.

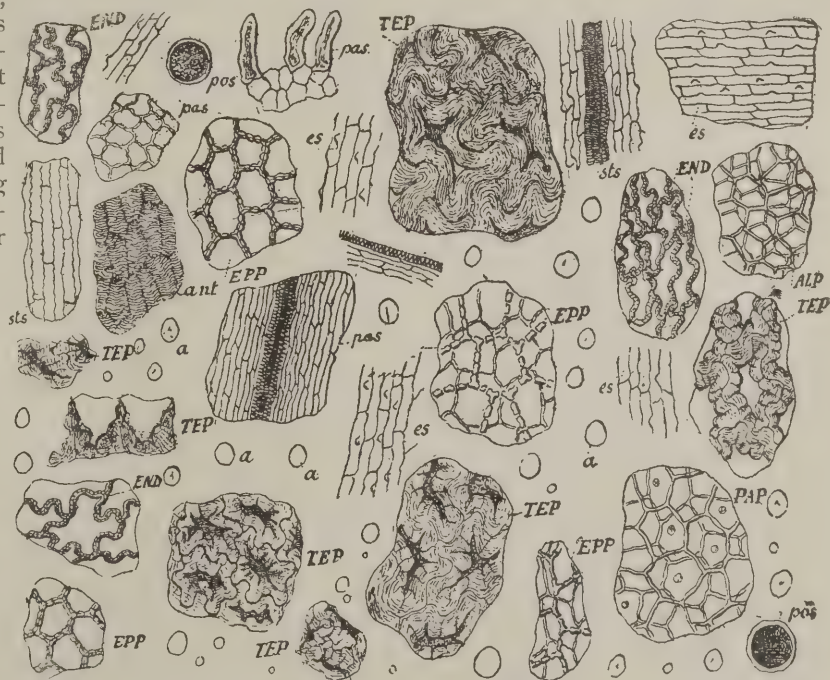


Figure 10. Powdered Saffron Sophisticated with Capsicum and Wheat Starch. (120 diameters).

EPP, pericarp of capsicum; *END*, endocarp of capsicum; *TEP*, front view of outer coat of capsicum seed; *TEP'*, profile view of the same; *PAP*, mesocarp of capsicum; *ALP*, albumin of capsicum; *a*, wheat starch; *es*, epidermis of the stigma of saffron; *pas*, papillæ; *par*, parenchyma of the stigma; *ant*, fragments of anthers; *po*, pollen grains; *sts*, epidermis of the style.

ments of glandular and protecting hairs located at the base of the corolla. These hairs are always polycellular. They appear seldom in one series, more generally

which forms the limb. The latter is divided into two unequal lips; the upper one is obscurely bilobate, the lower one has three lobes, of which the middle one is somewhat better developed. At the lower part of the tube of the corolla is a small calyx with five teeth. Whenever this flower is used for adulterating saffron it is colored with azo dyes. This adulteration can easily be detected by treating the product with tepid water, which will remove the coloring matter and restore the original shape of the flower, which is entirely different from that of the stigma of saffron. Anatomically this flower and its powder are characterized by the presence of quadricellular secretion glands on the limb and the tube of the corolla, which at times are quite confluent, and by some bicellular glands, which, however, are very infrequent (see figure 9).

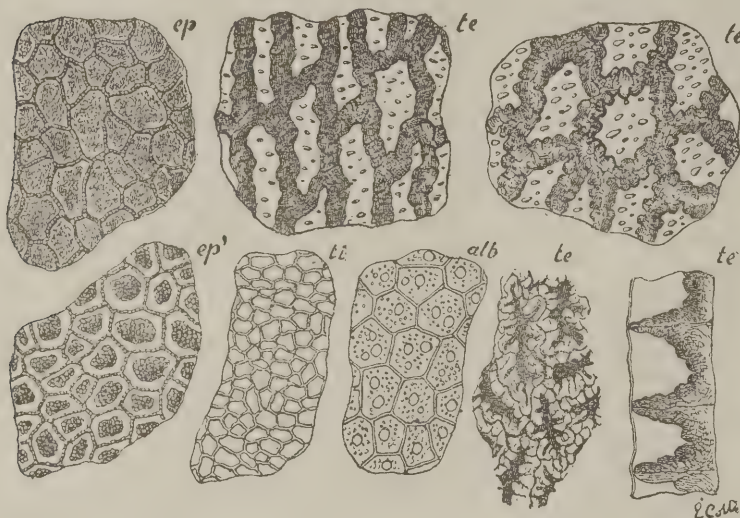


Figure 11. Components of Powdered Berries of *Physalis Alkekengi* (120 diameters).

ep, epicarp; ep', epicarp treated with potassium hydroxide; alb, albumin of the seed; te, external coat of the seed, front view; te', the same, side view; ti, inside seed coat.

in several series. The glands which crown the secretion hairs are always polycellular (see figure 8).

LYPERIA CROCEA.

Lyperia crocea, a plant of the *scrophulariaceæ*, commercially known as cape saffron, occurs as a small reddish flower about 2½ centimeters in length. Its gamopetalous corolla, irregularly tubulated and constricted at its base is abruptly enlarged at the top,

artificial coloring which is entirely different from that of saffron, and which is easily soluble in water, suffices to arouse suspicion as to the purity of the product. When the decolorized filaments are examined under a microscope the corn silk can at once be detected by the numerous polycellular and polyserial hairs on the epidermis; these resemble those which are found at the base of the semi-florets of marigold. Fragments of these hairs are always found in powdered corn silk.

CAPSICUM.

I have very often identified powdered capsicum as an adulterant in powdered saffron. Sophistication of the latter with capsicum, commercially called *poudre de poivron* is very common around Marseilles and in Tunisia. The addition of this substance to powdered saffron introduces constituents which are entirely different from those of saffron and strike the attention of the observer at once, as may be seen in figure 10. Interspersed with the fragments of saffron, which are always transparent, soft and easily to be separated, the constituents of capsicum can clearly be distinguished as the latter are opaque, resist separation, and have various shapes. They comprise (1) fragments of the epicarp (EPP) formed of polyhedral cells with thick and clearly spotted walls; (2) fragments of the mesocarp (PAP) with polyhedral cells containing yellow oil globules; (3) fragments of the endocarp (END) with sinuous cell walls which facilitate the identification considerably; and (4) fragments of the sclerotic coat of the seeds (TEP), clearly characterized by their large dimensions and by the polymorphism of their cells which have markedly sinuous walls resembling intestines. Not one of these constituents resembles those which are present in powdered saffron.

Probably for the purpose of discrediting the experts or to fill their minds or those of the judges with

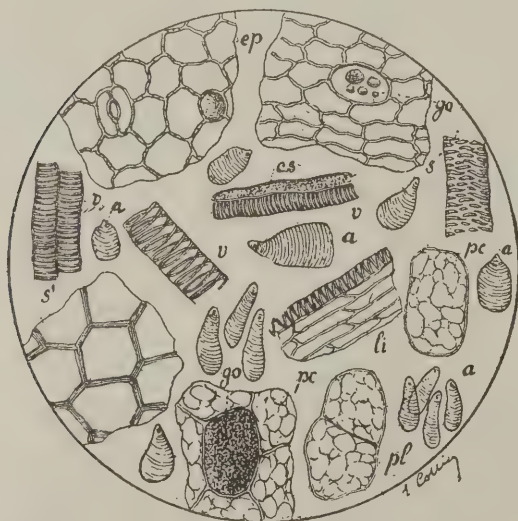


Figure 12. Constituents of Powdered Turmeric (250 diameters).

a, isolated grains of starch; ep, epidermis of the rhizome; cs, secretion canal; pc, cortical parenchyma; pl, woody parenchyma; li, inner bark; go, oleoresin-producing glands; v, streaked and dotted ducts; s, side view of corky cells; s', front view of corky cells.

doubt, the defrauders in the neighborhood of Marseilles have tried to deny that saffron is adulterated with capsicum, basing their denial on the biting taste of the fruit and seeds of capsicum. This contention does not hold, because every naturalist and clever defrauder knows well enough that the pericarp of the whole fruit of capsicum, which is chiefly used as an adulterant of saffron, contains only a limited amount

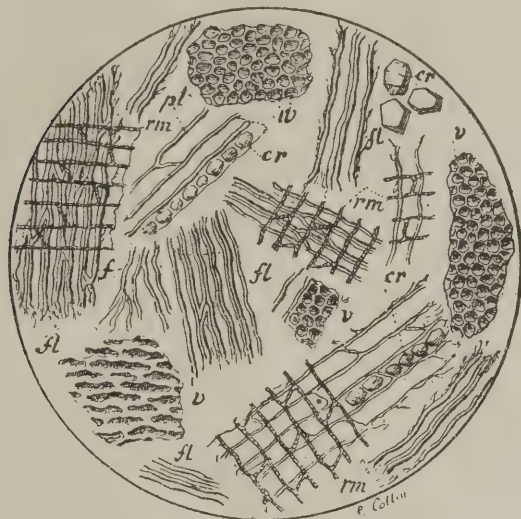


Figure 13. Constituents of Powdered Pernambuco Wood.

cr, crystals of calcium oxalate; *fl*, woody fibers; *pl*, woody parenchyma; *rm*, medullary rays; *v*, ducts.

of a substance, the placenta, which is excessively sharp in taste, and this can easily be separated by grating.

It is claimed that instead of capsicum the fruit of another solanaceæ has been taken. This is the winter-cherry (*physalis alkekengi*) the pericarp of which in a fresh state is colored red. An examination of figure 11, which illustrates the anatomical constituents of powdered *physalis* shows that, although the sclerotic coats of the seeds of *physalis* resemble those of capsicum, due to the near relationship of the two plants, other very characteristic constituents prevent confusion. Among others there are the shape and the entirely different arrangement of the cells of the epicarp (*ep*, *ep'*), and especially the absence in *physalis* of these cells of the endocarp, which by their windings and the constancy of their characters form an essential constituent in powdered capsicum. The inner coat of the seeds of *physalis* (*ti*) is perfectly characteristic. On account of the beautiful color of their pericarp the berries of *physalis* are very probably used for adulterating saffron; but in all samples which I have been asked to examine and in all those in which the addition of capsicum was alleged, I have found a large amount of capsicum, but only a small amount of *physalis*.

CURCUMA.

The addition of powdered turmeric to saffron gives to the latter the property of being colored blue when treated with iodine-potassium iodide solution. By microscopical examination of a powder, thus sophisticated, the presence of two forms of starch grains can easily be detected. These appear either as elongated isolated grains (*a*, figure 12), pointed at one end and

marked with parallel stripes, or as less distinct, much smaller grains, united as a compact mass and in the shape of a paste in the sufficiently large cells of the cortical parenchyma and the woody parenchyma (*pl*, *pc*). In addition to these constituents, large streaked ducts (*v*) and oleoresin-producing cells (*go*) can be found, which are never present in powdered saffron.

SANTALUM RUBRUM.

Powdered red sanders is adapted for the adulteration of saffron, on account of its color. But its identification is very easy; it depends on the presence of large ducts, woody fibers and fragments of a woody parenchyma containing a brown, water-insoluble coloring matter. Besides most of the fibers are accompanied by prismatic crystals, which never are present in saffron.

PERNAMBUCO WOOD.

Quite recently I have had occasion to examine in the Central Laboratory for the Suppression of Frauds one of those small packages of saffron generally sold in southern France for 5 centimes a package. It contained about 75 per cent, of Pernambuco wood, 20 to 25 per cent. of coarsely powdered saffron, and 1 to 2 per cent. of naphthol yellow. These ingredients are mixed so imperfectly, that they can be detected with the naked eye and can be separated with the aid of a magnifying glass. The naphthol yellow being very soluble, at once colors the water, in which the powder is thrown, yellow; the saffron can easily be distinguished by the brown color of the flat pieces of which it is composed from the brown fibrous constituents of Pernambuco wood. When viewed through a microscope the naphthol yellow appears as small needles; the Pernambuco wood shows fibrous fragments, resembling considerably those of red sanders, but differing from the latter in their color, which is a much lighter red-brown than that of red sanders. The

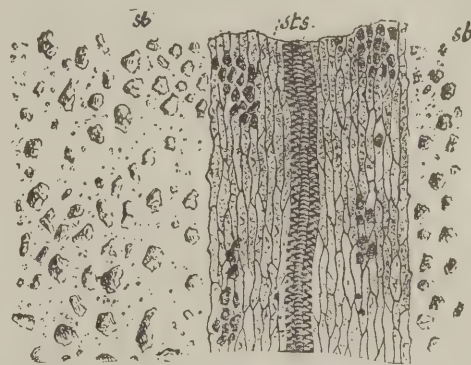


Figure 14. Powdered Saffron Weighted with Barium Sulphate.

sts, fragment of the style with still adhering dust of barium sulphate; *sb*, powdered barium sulphate separated by pressing the stigma while immersed in water.

powder contains fragments of spotted ducts (*v*, figure 13) more or less scattered woody fibers (*fl*), fragments of the woody parenchyma (*pl*), prismatic crystals of calcium oxalate (*cr*), and numerous pieces of medullary rays (*rm*) furrowing perpendicularly the fragments of the fibrous tissue and the woody parenchyma.

STARCH.

Certain rather ignorant defrauders adulterate saf-

fron with starch. I have had occasion to prove this fraud in samples of saffron of a well-known brand. This saffron which is sold in packages at the price of 5 centimes for 15 centigrammes had been mixed with a large amount of sweet pepper. Asked to explain the presence of these strange constituents, one of the accused merchants cited a report which stated that in cases of exotic saffron sometimes one or two pieces of the fruit of pepper and often crusts of bread are found, which were left in them by the carelessness of the men employed in sorting the saffron. The starch of bread crumbs or bread crusts is, however, entirely different from the normal wheat starch which had been willfully added to the sophisticated saffron. Why did they leave in the saffron such substances as the fruits of sweet pepper, which can easily be seen and separated?

WEIGHTED SAFFRON.

The weighting of saffron is one of the most common and most lucrative adulterations. The weighted saffron has sometimes a very beautiful exterior, but very often such an appearance makes the product looks suspicious. For instance, saffron weighted with glycerin, when pressed between two pieces of thin paper leaves a greasy spot on the latter; it remains flexible between the fingers, without adhering to them. Saffron weighted with honey or glucose has a sweet taste and adheres to the fingers when pressed between them.

Saffron, weighted with saline solutions can be distinguished at once by the uniform color, while the color of normal saffron, on the other hand, is always paler, and yellowish at the lower part of the style. Besides, such a saffron usually possesses a peculiar stiffness, derived from the gum or dextrin added to the saline solutions to make them more adherent. This stiffness is entirely different from that acquired by the saffron during the drying process. When cut with a pen-knife or scalpel, saffron so weighted emits a peculiar sharp noise. When thrown into water the weighted filaments immediately sink to the bottom of the liquid; when weighted with a salt, which is soluble in water, the salt separates and forms colored trails which disappear on shaking. If the adulterant is an insoluble salt, it separates as a fine powder, settling at the bottom of the liquid.

By incinerating weighted saffron the nature of the adulterant can be determined. Saffron weighted with honey, sugar or glucose emits an odor of caramel on burning. Saffron adulterated with potassium nitrate or sodium nitrate behaves like paper or vegetable powders impregnated with the same salt.

The presence of borax can easily be proven in saffron adulterated with this salt. The stigmas adulterated with borax, protected by the salt which acts as a fine resister, when ignited remain black and charred; the ash, even after prolonged heating remains dark grey. Placing a pinch of the saffron or the ash in a porcelain dish together with a little sulphuric acid and methyl alcohol, and igniting the latter, a green flame can be noticed in the presence of borax. By the weight of the ash the addition of saline substances can easily be proven and therefore this determination is of importance. The nature of these adulterants can be established by chemical analysis. By microscopical examination the presence of such adulterants can easily be proven also. Viewing a small piece of the stigma, adulterated with insoluble salts, under a micro-

scope, the shape of the saline impurities can easily be distinguished; and by pressing lightly the preparation between two slides, the salt can easily be separated.

Toning Up the Rubber Goods Department.

After trying various plans and schemes, J. E. Taylor reports in the *Bulletin of Pharmacy* that he has found a satisfactory remedy for the common ailments of the rubber goods department. This remedy he applied by removing all the shelves from the front two sections of the "patent-medicine" fixtures in his store, then covering the background with tightly stretched cloth and scattering over this screwed-in brass hooks of various sizes.

On some of these hooks he hung assorted sizes of syringes in a graded rank. From other hooks atomizers were suspended. Hot-water bottles of different sizes were hung in various positions; as were fountain syringes, catheters, piston syringes, eye pipettes, nipples, rings, bulb syringes, bottle brushes, tubing, throat-bags, ice-bags, nipple shields, rubber and glass combinations, breast pumps, colon tubes, syringe bags, baby rattles, veterinary syringes, medicine droppers, etc.

Each article was displayed separately. Over the top were written the name of the article, the cost, and the selling price. Underneath the display case two sets of shelves were put in and solid doors attached. The surplus stock was carried in one space and the empty containers of the display stock were placed in another. The display case was fitted with large glass doors.

Mr. Taylor avers that this display is the best advertisement of rubber goods he has ever used. He believes that any druggist who will take the trouble to arrange his stock in a similar manner will be repaid in the better appearance of his store, in the economical storing of the goods, and in more sales. His sales of rubber goods were almost doubled during the year.

Various Uses for Kerosene.

Kerosene has its place as a therapeutic agent, according to long established household practice, and William R. White, at the 1910 meeting of the American Pharmaceutical Association, presented a paper on its place in pharmacy. As synonyms for the hydrocarbon he mentioned coal oil, rock oil, solar oil, paraffin oil, mineral oil, carbon oil, petre, earth oil, photogene, eupione and refined petroleum. He also said that it has a specific gravity ranging from 0.744 to 0.829, boils above 77° C., and has a flashing point from 62° to 68°. It mixes with such liquids as chloroform, ether, volatile oils and most of the fixed oils, but will not mix well with castor oil, glycerin or alcohol. It will dissolve 4 or 5 per cent. of iodine, if warmed and agitated, the solution resembling very much a certain commercial preparation; it will take up a much larger percentage of iodine if mixed with chloroform.

ITS TASTE AND ODOR.

Proceeding, Mr. White said that saccharin modifies the bad taste of the oil, and that the oils of cassia, cajeput, cloves, peppermint, wintergreen, camphor, and bitter almond will disguise its odor. He also tried shaking it with an acid solution of such oxidizing agents as potassium permanganate, potassium dichromate and potassium chlorate, and then decant-

ing and filtering it through freshly slaked lime, but none of these entirely deodorized it, although each improved it a great deal, the chlorate giving the best results. Kerosene in an alcoholic solution of potassium hydrate turns the alcoholic solution red and the kerosene is almost completely deodorized. By the liberation of nascent hydrogen in kerosene he got an odor resembling that of onions.

TAKEN INTERNALLY.

He gave an instance of the use internally, with suicidal intent, of a pint of kerosene, with no very serious result, and said that it was largely used as a rectal injection for amebic dysentery in quantities of half a gallon or more, with excellent effect. "I have known kerosene to be taken internally in numerous cases of croup in children in from one-half to one teaspoonful doses with good results," he said, and added: "It is also taken frequently for coughs and colds, usually mixed with sugar."

FOR EXTERNAL APPLICATION.

However, its principal therapeutic use is as a liniment, and the following formula was submitted for—

KEROSENE LINIMENT.

Camphor	1.0 gramme.
Oil of peppermint.....	0.5 c.c. (mil.)
Oil of wintergreen.....	0.5 c.c. (mil.)
Oil of cloves.....	0.2 c.c. (mil.)
Oil of cassia.....	4.0 c.c. (mils.)
Oil of cottonseed.....	8.0 c.c. (mils.)
Oil of cajeput.....	8.0 c.c. (mils.)
Oil of turpentine.....	4.0 c.c. (mils.)
Kerosene	72.0 c.c. (mils.)

FOR TOOTHACHE.

Oil of cloves, oil of cassia and phenol dissolved in kerosene make a splendid toothache remedy.

AS AN INSECTICIDE.

Kerosene has already gained rank as one of the best insecticides. Evelyn Groesbeeck Mitchell says an ounce of it sprayed over fifteen square feet kills not only larvæ and pupæ, but catches the adults and is therefore, by virtue of its simplicity, cheapness and efficiency, the best larvacide for many purposes where its odor is not offensive. Kerosene does not harm fish or aquatic insects that breathe on the surface, and acts well in salt water. An emulsion of kerosene can be cheaply made by the following formula:

Green soap.....	2 grammes.
Boiling water.....	32 c.c. (mils.)
Kerosene	64 c.c. (mils.)

Dissolve the soap in the boiling water and add to the kerosene and agitate vigorously. This makes a snow-white emulsion which shows little tendency to separate. It can be used to spray trees, etc., when diluted with water.

AS AN EMBROCATION.

By adding oil of camphor, oil of cajeput, etc., to the emulsion, a splendid liniment may be made.

FOR LIMBER-NECK.

Kerosene also enjoys some reputation as a remedy for the disease known as limber-neck in chickens.

In conclusion Mr. White said: "I have known of its use as a hair tonic, but have not tried it for that purpose yet."

Difficulties in Dispensing.*

By J. LEON LASCOFF.

In the pharmaceutical art, as well as in other arts, many problems confront us which at the first glance seem to be difficult—sometimes apparently impossible to solve—yet, with a little thought and study, it is very easy to overcome these obstacles, to clear away doubt, anxiety, and oftentimes fear; and then we feel proud of our accomplishments.

For this reason, I have chosen as my subject one that is of every-day importance to us, and is met in our daily toil for existence. My subject is "Difficulties in Dispensing." This may seem to you a repetition of an old topic, and indeed in some respects it is; but I have endeavored to present the subject in a new phase, from the standpoint of a true pharmacist, considering how it bears upon our relations with the doctor. Imagine a physician addressing an audience of his colleagues on the subject of "Appendicitis and Its Surgical Treatment"; and yet, when he does so from the standpoint of one who has had especial experience with this disease, with the intention of bringing out new points not yet understood, he immediately receives attention, and something is learned thereby.

In presenting this subject I have three main objects in view: First, to avoid criticism of the writers of prescriptions; second, to encourage the physician to continue prescribing his own combinations instead of the usual stock of proprietaries and ready-made mixtures in general; and third, to make clear the vital importance of using only the best and purest materials from the most reliable manufacturers.

As to the first object: you, as pharmacists, have certainly experienced from time to time some difficulties in making up a particular prescription on account of the apparent incompatibility of the specified ingredients. But with the proper technique at your command you can compound a clear, palatable, nice-looking and presentable mixture, without changing the nature and therapeutic value thereof. Failure to accomplish this result has the tendency to encourage the physician to prescribe ready-made preparations, which he knows, through the sampling system, to be presentable; or he chooses his other privilege of dispensing his own preparations; in other words, deprives you of the opportunity which you as pharmacists have striven for many years to attain.

The cause of very many of the apparently incompatible prescriptions is the fact that inferior grades of chemicals are used by our colleagues; not through any malice aforethought, or for the purpose of saving a few cents, but rather because of the routine methods of ordering the goods from the wholesaler without specifying the grade. I will illustrate this as I go along.

The prescriptions which I present to you today are copies of originals written by members of the medical profession who regard the pharmacists as their professional associates and aids in presenting a medication in a manner and style agreeable to the patient. I shall endeavor to point out the methods I pursue in overcoming the difficulties. I think they are the correct ones.

I.

Corrosive mercuric chloride... 0.1 gramme.

*Read at the December meeting of the Kings County (N. Y.) Pharmaceutical Society and contributed by the author.

Potassium iodide..... 12.0 grammes.
 Syrup of ferrous iodide..... 20.0 grammes.
 Distilled water enough to make 90.0 c.c. (mils).

Direct: A teaspoonful three times a day in water.

The difficulties arising in this prescription are due to the alkalinity and sometimes the impurity of the potassium iodide. If not properly compounded the mixture becomes cloudy and afterwards deposits a brownish precipitate. The proper way to dispense it is the following: Dissolve the potassium iodide in a small quantity of the water; mix with the syrup of ferrous iodide; then dissolve the bichloride in a small quantity of water; add this solution little by little to the first mixture; then add enough water to make the desired quantity. In this way a light-greenish, clear mixture is formed. [If not clear there is danger in dispensing this, as too much of the bichloride might be taken in one dose.]

II.

Fluidextract of cubeb..... 8 c.c. (mils).
 Tincture of hyoscyamus..... 12 c.c. (mils).
 Potassium citrate..... 24 grammes.
 Distilled water..... 60 c.c. (mils).
 Glycerin 24 c.c. (mils).

The physician was well aware of the fact that fluidextract of cubeb is a resinous extract. For that reason he prescribed glycerin, but not enough to hold the resinous extract in suspension. The proper way to dispense this is to dissolve the potassium citrate in a small quantity of water; mix the tinctures and the fluidextract; emulsify with a small quantity of acacia and the glycerin; adding to this the citrate solution there is formed a nice, palatable, good-appearing mixture with the proper proportion of each ingredient.

III.

Protargol 2.0 grammes.
 Cocaine hydrochloride..... 0.5 gramme.
 Distilled water..... 60.0 c.c. (mils).
 Direct: For external use.

Cocaine hydrochloride with protargol in solution forms a cloudy mixture with precipitation. This is due to the chloride in the cocaine salt reacting with the protargol, a salt of silver, and forming silver chloride. By using cocaine nitrate instead of the hydrochloride the mixture is clear without any precipitation whatsoever. The same applies to novocaine: use the nitrate instead of the hydrochloride. At first, when using cocaine hydrochloride, the mixture is clear. Owing to the fact that protargol is an albuminate, the chemical interaction is delayed until the silver is set free to be acted upon by the chlorine, but in a short while one will note the change into a disagreeable and unsightly mixture of no therapeutic value.

IV.

Pyramidon 0.30 gramme.
 Antipyrin 0.20 gramme.
 Phenyl salicylate..... 0.12 gramme.
 Codeine 0.01 gramme.
 Caffeine, citrated..... 0.06 gramme.

To be dispensed in a capsule; twelve to be dispensed.

This mixture compounded in the order in which the ingredients are here written, in a short time will form a liquid mass and the capsules will not be fit to be taken. By triturating the phenyl salicylate, the codeine and the caffeine in a mortar separately with the addition of 2 grains of sugar of milk per dose, then triturating gently the antipyrin with this

mixture and adding at last the pyramidon, one produces a nice, white dry mixture which will keep for any length of time after being enclosed in capsules.

V.

Oil of mustard..... 40 drops.
 Menthol 2 grammes.
 Chloroform 20 c.c. (mils).
 Petrolatum 40 grammes.

To be made into an ointment.

The proper procedure is to melt the petrolatum and put it in a wide-mouthed bottle; dissolve the oil and the menthol in the chloroform; add this solution to the melted petrolatum after it has cooled somewhat; stopper loosely and apply a gentle heat until the ingredients are mixed. The chloroform and the menthol will all be evaporated if exposed to the air or added direct to the petrolatum while it is hot.

VI.

Sodium salicylate..... 4 grammes.
 Sodium bicarbonate..... 12 grammes.
 Distilled water..... 90 c.c. (mils).

To be used as directed.

This mixture will change color. First it will turn brownish and then gradually become black. This is partly due to the presence of iron as an impurity in the sodium salicylate, and partly to the presence of the alkaline salt. By using pure chemicals, the color change can be prevented for at least five or six days, in other words, during the time the medicine is being used by the patient.

VII.

Pills of ichthyol each containing... 0.3 gramme.

Twenty-four to be freshly prepared.

If the ordinary ichthyol be used as such, no matter what kind of excipient is added, the pills will be large enough to be called boluses. Even if sodium ichthyol is used instead of the ammonium compound, the pills will be very large. The way to turn out a nice small-sized pill absolutely free from all additional ingredients is to evaporate the ammonium ichthyol on a water-bath. We know that ichthyol by evaporation loses at least 45 per cent. of its weight. [But so little is known about the character of ichthyol that one scarcely is warranted in subjecting it to the influence of even a gentle heat. We prefer to use the sodium ichthyol for pills.—Editor THE DRUGGISTS CIRCULAR.]

VIII.

Terpinol 6.0 grammes.
 Sodium benzoate..... 6.0 grammes.
 Heroine 0.1 gramme.
 Extract of glycyrrhiza..... 4.0 grammes.

To be dispensed in twenty-four capsules.

This is the most difficult combination with which I have attempted to produce a satisfactory mass. No matter how triturated the sodium benzoate will always show as white flakes. The only way to avoid this is to triturate the terpinol with a little calcined magnesia. [The use of magnesia as an excipient is to be condemned because it forms insoluble and non-disintegratable masses.—Editor THE DRUGGISTS CIRCULAR.] Add the heroine and the extract and then the benzoate dissolved in a few drops of water. The resulting mass has a homogeneous brownish color without any traces of the flakes of the benzoate.

It is an easy matter for the dispensing pharmacist after compounding ingredients of an incompatible nature to dispense the mixture as it is, attaching a

"shake" label; or he can pass the mixture through filter paper or absorbent cotton, thus securing a clear mixture. If he sends out the mixture in its chemically changed form, with the "shake" label, he is not giving what the doctor ordered; and if he filters, then he is not only fooling himself, but the patient as well. "Shake" labels should only be permissible when one or more of the ingredients is insoluble in the vehicle. None should sanction the filtering out of prescribed insoluble ingredients. Rather is it more desirable to suspend the insoluble ingredients with the aid of an emulsifier to secure uniformity, especially of dosage.

Another very important point for the pharmacist to remember is that, while the physician is the direct intermediary and aid to the patient, the pharmacist is the aid to both the physician and the patient; and if there is any doubt as to the efficacy or validity of a prescription it is the duty of the pharmacist to be where the physician can communicate with him at any time. This is emphatically borne out by an experience I had the same morning I was preparing this paper. The prescription in question called for the following ingredients:

IX.

Oleoresin of aspidium..... 4 c.c. (mils).
Oil of turpentine..... 2 c.c. (mils).
Castor oil..... 60 c.c. (mils).

Direct: To be taken at one dose.

In some European countries the dispensing of this combination is prohibited by law, and it is unlawful to dispense oleoresin of aspidium in any mixture with castor oil. [Aspidium is of itself dangerous (see below), the oil merely enhances its toxicity.—Editor THE DRUGGISTS CIRCULAR.] In prescribing oleoresin of aspidium, Poulsson recommends that oily substances be avoided because they dissolve the filicic acid, one of the poisonous constituents of the oleoresin, and thus promote its absorption. It is certainly suggestive that in many cases of poisoning with aspidium, castor oil has been prescribed along with it or soon after. Prof. Cushing in his *Action of Drugs* says: "Where large quantities of the drug [aspidium] are absorbed, grave and even fatal symptoms may ensue. These consist in vomiting, purging, acute pain in the abdomen, muscular weakness, somnolence, twitching of the muscles, convulsions, coma and death. In some cases jaundice is caused and in others permanent or temporary blindness has resulted from neuritis and subsequent atrophy of the optic nerve."

Prof. O. Everbusch, of Erlangen, Germany, cites a case of poisoning with this drug. A youth of twenty years of age, thinking he had tapeworm, took a preparation, already prepared as a household remedy, containing 10 parts of aspidium and 90 parts of castor oil. Immediately he developed a violent headache and nausea, and fell into a sleep lasting thirty-six hours. On awakening he was totally blind. Examination showed that he was suffering from optic neuritis and contractions of all the blood vessels of the optic nerve and retina. There also developed albuminuria of a severe type which, however, disappeared in the course of a few days. All known remedies were applied, but were of no avail, and he remained totally and permanently blind from optic neuritis.

From these facts I deem it proper to bring to the attention of pharmacists the expediency of cautioning the prescriber in cases where castor oil and oleoresin of aspidium are to be used together, and advise him to have them taken at a considerable interval.

I take pains in relating these cases because I feel that we as pharmacists can often avoid serious results of this nature; and if we are prepared in advance, and ready to meet the emergency when it presents itself, we can do much for the good of humanity.

Another very important matter that has come to my attention was a case in which a patient almost died as a result of an improperly prepared compressed tablet. I will quote from a reference to the Woodbridge treatment of typhoid fever, in a paper on "Important Therapeutic Indications in the Treatment of Typhoid Fever," by Dr. J. B. White, printed in the *New York Medical Times*. The Doctor said:

The best manner of giving the remedies is in tablet triturates. When properly made the tablets are so friable that they can be easily crushed between the fingers. If they are not made so that they can be readily assimilated, the result of treatment will not, of course, prove as expected, and I apprehend that this explains the failure of certain trials of the treatment in some hands.

The preparation of the tablets is a much more important matter than would appear at first thought, for if they should not be readily soluble they will not be dissolved in the stomach and intestines, but be expelled with the dejecta, their presence occasioning a degree of irritation proportionate to the number taken and their hardness and insolubility. I have seen this happen in more than one case, and the fever prolonged in consequence. As soon as tablets of proper make were given, however, the fever declined and the intestinal condition was as promptly relieved.

. . . . J. I., aged seventeen, was taken ill with typhoid and progressively grew worse. After being under treatment for a week . . . I advised a careful inspection of the dejecta and discovered a large number of undissolved tablets. It was subsequently found that these tablets were made with calcined magnesia as an excipient, and they were as hard as marbles. When other tablets were obtained from another source and given with the usual frequency the fever rapidly declined.

The following is an example of a tablet representing the Woodbridge treatment:

X.

Guaiacol, carbonated..... 2 grains.
Menthol 1/8 grain.
Eucalyptol 1/8 grain.

Make a tablet, dispense twenty-four.

These tablets can be easily made by granulation and gentle compression. They are very friable and easily crushed in the hands.

In conclusion, I wish to state that druggists should use their powers of discretion, their best judgment and most complete technical ability in dispensing, coupled with the best drugs obtainable and with the greatest amount of care. Under-graduates should not be given complete charge of the prescription department; nor should graduate pharmacists who lack technique and practical experience. With this in mind the pharmacist's work will bear fruit and he will be assured the confidence of the patient and the physician.

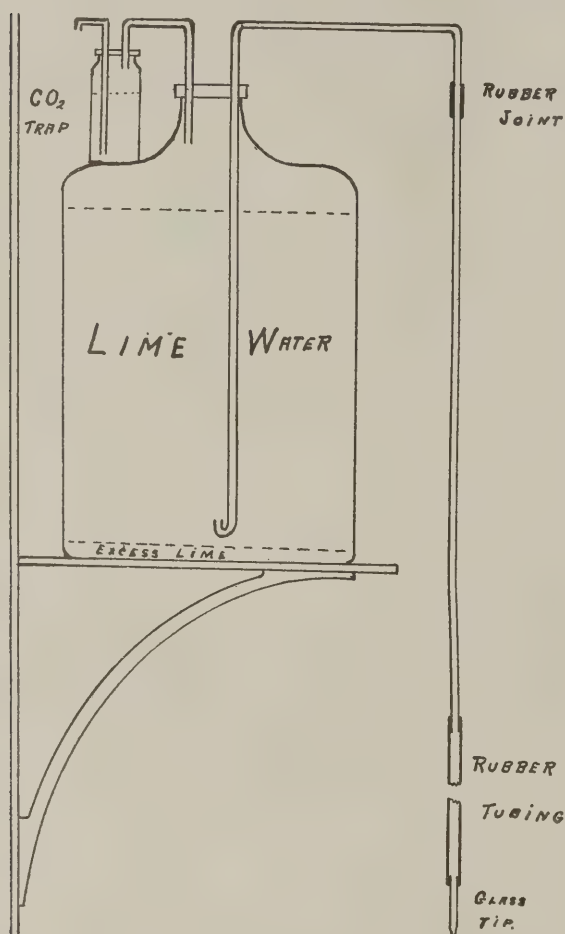
Oleoresin of Pinus Insularis.

Brooks (*Philippine Journ. Sci.*) has examined the oleo-resin of pinus insularis and finds that the oil has a specific gravity of $30^{\circ}/30^{\circ}=0.8593$, refractive index 1.4656 at 30° , and optical rotation $+26.5^{\circ}$. Not less than 96 per cent. distils between 154° and 165.5° . In five other samples the optical rotation varied from $+13.15^{\circ}$ to $+27.48^{\circ}$. The resin was found to contain over 90 per cent. of abietic acid.

Keeping Lime Water.*

Owing to the fact that lime water absorbs carbon dioxide from the air which precipitates the calcium as carbonate, it soon loses its strength.

Lime water should not be kept in too warm a place, as calcium hydroxide is more soluble in cold than in warm water; for example, a saturated solution of



APPARATUS FOR KEEPING
LIME WATER.

calcium hydroxide at 25° C., contains about 0.14 per cent., while at 15° C. it will contain about 0.17 per cent.

In the keeping of lime water, we would suggest that druggists make up quantities of 10 gallon lots, or more.

Then take a bottle or carboy that will hold, say 5 gallons, and place it on a shelf of suitable height, and arrange it as shown in the accompanying diagram.

It would be well to have two bottles of this size, one to be used to prepare the solution in, while the other one contains the finished product. Allow the

undissolved calcium hydrate to settle before changing bottles and connecting with syphon.

The turned up end of the tube (see diagram), prevents disturbing the sediment when siphoning off the lime water.

The tubing can be bent to any angle by heating to redness in gas or alcohol flame, and the carbon dioxide trap can be made out of an ordinary wide-mouthed bottle partly filled with a strong solution of sodium hydroxide; or, soda lime may be used.

After filling the outlet tube by suction, the liquid in the bottle may be siphoned out as wanted by opening the stop-cock at the lower end of outlet tube. The rubber joint prevents breakage of the tube by rendering it less rigid.

Sunday Closing.

The attitude of the public is in the main favorable to shorter hours for druggists as well as for other bread winners, according to Richard H. Lackey, who read a paper on the subject at the 1910 meeting of the Pennsylvania Pharmaceutical Association. Those druggists who have been most reluctant to join with their fellows, have been the most surprised that the plan could be so easily carried out and are now among those who are the most ardent to continue it, he says, referring to experiments which had been made in the northeastern part of Philadelphia.

Mr. Lackey states that the loss of receipts is no doubt compensated for in the greater spirit in which the druggist or his clerk can enter into his duties, because of the increased opportunity for rest or relaxation. "No one has claimed that his receipts for the year have fallen off, because of the fewer number of hours his store was open on Sunday," he reports, adding:

"Speaking generally on the subject of Sunday closing and shorter hours, I believe that one of the principal reasons for the dearth of good clerks can be found in the hours the clerk is expected to serve in the drug business."

"Mind Your Own Business."

In a report as chairman of the Chicago Retail Druggists' Association's propaganda committee, O. Probasca introduced the expression "mind your own business," and enlarging upon the virtues which it enjoined, said:

If our finances reach a low ebb and we are forced to augment our resources, it will discourage the doctor from turning into a canned condensed apothecary, who can cure all cases from a weak appearing shelf of bottles and a stray assortment of tablets with which some culinary aborigine of the pot-and-kettle type of proprietary medication soaked him.

It will teach the druggist that when he is counter-prescribing he is only *nosing* instead of *diagnosing*, and that a pickpocket has more respectability than he will have in all eternity. It will teach him to keep his windows clean and eschew the "patent"-medicine man whose only motto is kill more, both profits and people.

Precaution in Handling Corrosive Liquids.

An English factory inspector suggests that where acids are being handled, goggles similar to those worn by motorists, and made of rubber and glass should be worn by the operatives. This suggestion is a good one for druggists, of course, as well as factory operatives, and equally applies to all corrosive liquids.

*From Bulletin No. 150, on "The Preservation of Drugs," issued by the Kentucky Experiment Station of the State University.

Abstracts

Bismuth Benzoate.

Godfrin (*Journ. pharm. chim.*) has examined a large number of samples of commercial bismuth benzoate and has found that none represented the true salt expressed by the formula $\text{Bi}(\text{C}_6\text{H}_5\text{CO}_2)_3$. He has worked out the following process by which the true salt can be obtained: 6 grammes of bismuth nitrate are intimately mixed with 6 grammes of glycerin and 6 c.c. (mils) of water and the mixture stirred until solution has taken place. This solution is added at once to a solution of 6.2 grammes of sodium benzoate in 6 grammes of glycerin and 12 c.c. (mils) of water. The mixture is then well triturated to remove any lumps which may have formed, and when homogeneous it is mixed with constant stirring with two or three successive portions of 80 c.c. (mils) each of a 0.2 per cent. aqueous solution of benzoic acid. The mixture is then allowed to crystallize at a temperature of 10 to 15° C. for five to ten days, after which time the crystals are collected on a filter, preferably with the aid of a suction pump, washed three times with the above benzoic acid solution and finally dried either over sulphuric acid or at a temperature not exceeding 60° C.

Color Reaction of Caffeine.

Armani and Barboni (*Soc. chim. ital* through *Rép. de pharm.*) recommend the following reaction for the identification of caffeine. One or two milligrammes of the substance are boiled with caustic potash solution for two or three minutes and mixed after cooling with Welman's reagent, obtained by dissolving 3 grammes of sodium phosphomolybdate in 100 grammes of water and mixing with 20 c.c. (mils) of nitric acid, until a white precipitate is formed. By the gradual addition of a 50 per cent. potassium hydroxide solution, the precipitate is redissolved and the solution acquires a blue color. After a few hours, a blue precipitate will be formed and the solution will be decolorized. A similar, but not as distinct a reaction, is obtained by using Moseigne's reagent, which is prepared by dissolving 10 grammes of sodium tungstate in 100 grammes of water and 5 grammes of phosphoric acid (sp. g. 1.13), and acidulating the solution strongly with hydrochloric acid.

Mastic Dressings.

Oettingen states (*Journ. pharm. chim.* through *Pharm. Journ.*) that he employed mastic dressings largely during the Russian-Japanese War. He remarks that he never cleaned the wounds, considering the process to be dangerous in certain cases. He had always contented himself with painting on with a brush a liquid composed of mastic, 20 grammes; chloroform, 50 grammes; linseed oil, 20 drops, which prevents the development of bacteria. A dressing is afterwards prepared with a piece of muslin, fourfold, between the folds of which is placed a layer of cotton wool. It is sufficient to apply this dressing on the coating of mastic painted on the wound, and it adheres easily. These dressings are prepared beforehand, and about forty or fifty are sterilized together, taking care to surround them with parchment paper, and closing the packages very carefully when they are removed from the sterilizer.

Unlabeled Poisons.

Jackson (*Journ. Am. Med. Asso.*) calls attention to a danger that has not been sufficiently recognized. He has had under observation four little children threatened with starvation because of cicatricial esophageal stenosis due to the swallowing of some form of caustic alkali. Stricture from the swallowing of commercial lye has long been observed, but has been less frequent since the decline of home made soap, but "concentrated lye" is still in extensive use and the market is flooded with proprietary cleaners and washing powders for household and laundry use. The author has seen three cases of the most severe ulceration and sloughing of the esophagus due to these proprietary preparations. In one case the child swallowed the rinsings of the almost empty can. In another case, the cleansing powder had been sprinkled on the dishes in the dish pan and not sufficiently removed by rinsing, and in a third case the child drank some water from a cup which had been used for measuring out washing powder for laundry use. On not one of the containers of these widely advertised preparations was there any mention of their dangers or of antidotes to be used. On the contrary, the misleading statements as to the harmlessness of the preparations are on every package and in every advertisement. He brings up the subject with the hope that the same laws that apply to the drug manufacturer in regard to the compulsory labeling of poisons may be extended to the manufacturers of these proprietary preparations also. Considering the cosmopolitan character of our population, especially our domestic servants, the caution label should be in many languages. He advises his readers to inspect their own kitchens and find whether or not caustic alkalies are used with reckless disregard of their poisonous nature.

Purpura from Benzol Poisoning.

Selling reports (*Bull. Johns Hopkins Hosp.* through *Am. Journ. Dermat.*) several cases of purpura hemorrhagica occurring in a factory in which benzol was extensively used as a solvent. In all the cases, two of which proved fatal, the most remarkable feature was the blood condition, and this can be best described as the picture of a plastic anemia. In common with this were: (1) The presence of only slight changes in the appearance of the red blood cells; (2) the absence of regenerative forms (in stained specimens of the two fatal cases, only one megaloblast and monoblast were found); (3) scantiness of platelets; and (4) diminution of the granular types of white blood cells, with a relative increase in the mononuclear elements.

Caution Regarding an Olive Oil Test.

Marcille (*Ann. Falsif.* through *Chemist and Druggist*) has examined a large number of Tunisian olive oils, and confirmed previous observers' statements that many of these oils give a distinct reaction with Bawduin's reagent (furfuraldehyde and hydrochloric acid), which is usually attributed to the presence of sesame oil. An experienced observer can, however, discriminate between the colors developed, and a bald statement that olive oil shall not yield any red coloration with this reagent will exclude many pure samples of oil.

Delicate Test for Glue.

Schmidt (*Chem. Zeit.*) finds that if a solution of ammonium molybdate acidified with nitric acid be added to a solution of glue, and followed by a little dilute nitric acid, a white precipitate is formed which is amorphous and heavy, quickly falling to the bottom, and leaving a clear liquid. Gum arabic, linseed mucilage and egg albumin do not give such a precipitate, but only a slight turbidity even when strong solutions are employed. If 1 milligramme of glue be present in 5 c.c. (mils) of the liquid tested, a considerable precipitate falls at once; if only half this proportion is present, a precipitate will be found to have formed after about an hour; and if only 0.00001 gramme of glue be present in 2½ c.c. (mils) of liquid, a distinct turbidity is still formed. This reaction may also be used quantitatively; the reagent is made by dissolving 3 grammes of ammonium molybdate in 250 c.c. (mils) of water, and adding 25 c.c. (mils) of dilute nitric acid of specific gravity 1.2; sufficient of this is added to the glue solution, the precipitate is washed with water acidified with nitric acid, at first by decantation and then on the filter, until nothing further is removed, then dried on the previously tared filter and weighed. The specimens of results given show that the figure obtained is usually about 5 per cent. too high.

Flashlight Powder.

A quick firing, strongly actinic flashlight powder for photographers recommended by Lumière and Seyewetz (*Photog. Journ.*) is made of powdered magnesium (finely sieved), 2 parts; and potassium perchlorate, 1 part, mixed on a paper with a feather, or a piece of cardboard. Aluminum may be used instead of magnesium, but the metal must be in impalpable powder, otherwise it is very difficult to start combustion. The aluminum must be so finely divided that it adheres so readily to the vessels in which it is contained as to coat them with a brilliant film. The screens to be used with these powders should be of a greenish-yellow color. Such a powder should be mixed only as wanted, being too dangerous to be stored.

The Ferments of Honey.

Natural honey contains several ferments with diastatic, proteolytic and inverting properties, on which, it is said, the nutritive value of honey largely depends. These ferments are destroyed when the honey is heated to 70° C., and naturally are not present in an artificial product. Auzinger (*Bull. ass. Chim. through Ann. d. Falsif.*), therefore recommends to examine honey not only for its physical properties, but for the presence of enzymes also.

Kromayer's Quartz Lamp in Eczema.

Rave (*Archiv. f. Derm. u. Syph., through Brit. Journ. Dermatolog.*), says that this lamp has been found to be extremely useful in curing stubborn eczematous patches which resist the usual treatment, and do not even respond to the x-rays. In pustular eczema, especially of the head and chin (sycosis), and also in chronic infiltrated eczemas, the treatment is effectual, but of the three types mentioned the first responds most readily to it.

Banana Flour as an Infant Food.

Pritchard (*Brit. Med. Journ.*) says that he has for many years recommended the addition of mashed banana to the milk mixtures given to bottle-fed infants. Now he proposes the use of banana meal made into a gruel or decoction instead of the proprietary infant foods. It is of great importance that infants should be trained early to digest cow's milk. This cannot be done by giving them artificial substitutes which are predigested. The use of cereal decoctions and solution of gum or gelatin undoubtedly makes the digestion of cow's milk easier, says the author and he finds that a decoction of banana gruel has many points to recommend it. It can be made quickly by rubbing up a heaped tablespoonful of banana flour with a pint of water, and then boiling for five minutes. A gruel made in this way has excellent colloidal properties when added to cow's milk in equal quantity; it thickens the milk and prevents the formation of the tough curd of casein, and satisfies the appetite of hungry infants more effectually than simple milk dilutions.

Delicate and Stable Litmus Solution.

Püschel's method of purifying litmus (*Oesterr. Pharm. Zeit. through Pharm. Journ.*) consists in treating an aqueous solution with 4-per cent. sulphuric acid, whereby a dark, brown-red precipitate is thrown down consisting, it is supposed, of a sulpho-nate of the violet coloring matter, while the other bodies present remain in solution. By filtering and washing the precipitate with cold water, the substance is obtained in a pure condition; it is dissolved in hot water, and neutralized with solution of potassium hydroxide. In this way a litmus solution of great purity, stability, and delicacy is obtained.

Quality of Zinc Dioxide.

Lemaire (*Rép. Pharm. through Pharm. Journal*) examined 15 samples of zinc dioxide. The best of the lot contained only 40.9 per cent. of ZnO₂; the worst, but 11.15 per cent. The author did not, however, come across any sample which contained no available oxygen. Vanverts, on the other hand, has met with some which were merely ordinary zinc oxide. To test the dioxide, 20 cgm. was dissolved in 10 c.c. (mils) of 10 per cent. sulphuric acid and titrated with N/10 permanganate, each c.c. (mil) of which thus used up would be equivalent to 2.425 per cent. of ZnO₂ in the sample.

Coloration of Poisonous Solutions.

Hibonneau (*Gaz. Méd. through Pharm. Journ.*) notes that corrosive sublimate solution is sometimes colored, and sometimes not, as is also the case with Van Sweiten's liquor in the French Pharmacopœia of 1908, which should be colored equally with other solutions containing this toxic principle. He regrets that solutions containing 1 in 100 or 1 in 4,000 should show the same coloration. Blue is the color recognized by the public doctors and pharmacists, and methylene blue is recommended instead of indigo blue. It is proposed to color the solutions with methylene blue in quantity proportional to the sublimate present, adopting the standard of 2 milligrammes of coloring matter to a liter of 1 in 1,000 solution.

Adulterated Star Anise Oil.

Parry reports in the *Chemist and Druggist* that adulterated star anise oil has recently been found in the London market. A number of parcels examined had the following characters: Specific gravity at 20°, 0.9575 to 0.9740; refractive index at 20°, 1.5460 to 1.5475; melting-point, 12° to 15°; congealing-point 10.5° to 12°; optical rotation, 0° 15' to +0° 35'. It will be noticed, says the author, that the specific gravity is abnormally low, and does not correspond with pharmacopoeial requirements, while the melting and congealing points are also very low. The refractive index is lower than he had ever found for pure aniseed oil, which has a value between 1.5520 and 1.5580 or thereabouts. The slight dextro-rotation indicates nothing, as some samples of pure star anise oil are faintly dextro-rotatory. A bulked sample made from a number of those examined was fractionally distilled as was also a sample of pure oil. All the intermediate fractions had lower refractive indices and lower melting points than the corresponding fractions of the pure oil, and the amount distilling between 225° and 235° was only 69 per cent., against 87 per cent. for the pure oil. The residue of 20 per cent. was less soluble in alcohol than the corresponding fraction of pure aniseed oil. The color of the adulterated oils was characteristic, and quite different from that of pure oil. The most probable adulterant is some fraction of camphor oil.

Cherry Laurel Water with Alkaloidal Salts.

Cherry laurel water made in porcelain containers, it is said, never produces precipitates when mixed with solutions of morphine hydrochloride. Mythenaere (*Bull. Comm.*) has found that precipitates are produced by traces of copper, with which commercial cherry laurel generally is contaminated. He therefore recommends redistilling the latter in glass containers before mixing it with the solutions of alkaloidal salts.

Gelatin and Hardening Substances.

Lumière and Seyewetz report (*Brit. Journ. Photog.*) a number of experiments having to do with the degree of impermeability of gelatin produced by various hardening substances. To a hot 10-per cent. solution of selected gelatin were added increasing proportions of solution of formaldehyde, quinone, quinone-sodium sulphonate, chrome alum, and potash alum. All these substances, with the exception of the ordinary quinone, which is sparingly soluble in water, were used in 20-per cent. aqueous solution. Quinone was used in 5-per cent. solution in alcohol. In each experiment the gelatin solution, to which was added the different quantities of the hardening solution, was further diluted with water, so as to bring each solution to a standard strength of 7-per cent. gelatin. Thus, for 100 c.c. (mils) of 10-per cent. gelatin solution a further 42 c.c. (mils) of liquid were added, consisting of water, and the 20-per cent. solution of the hardening substance. The respective quantities of the different hardening substances which can be present in 100 c.c. (mils) of 7-per cent. gelatin solution without reducing the fluidity of the solution are given in a table. The following are the conclusions drawn: (1) The substances which render

gelatin insoluble diminish also its permeability. (2) The various hardening substances which may be added to gelatin solution, without interfering with its fluidity, may be classified in a decreasing order of their effect on the solubility of gelatin thus: Formaldehyde, quinone-sodium sulphonate, quinone, chrome alum, potash alum. Potash alum, which does not render gelatin really insoluble, but only diminishes its fluid properties, has a considerably weaker action than the other hardening agents. (3) Although formaldehyde has more marked hardening properties than quinone and its sulphonic derivative, and does not, as do these, color the gelatin red, it is better to use the latter in all cases where the gelatin is supported by a rigid body, because formaldehyde produces contraction of the gelatin, which tends to detach the film from the support. (4) Quinone and its sulphonic derivative may be employed in much stronger proportions than formaldehyde without interfering with the fluidity of the gelatin solution, and are therefore preferable, though possessing lesser hardening properties.

Grave Dangers of "Optometry."

Janeway (*Journ. Am. Med. Asso.*) reports a striking instance of the dangers of allowing opticians to prescribe for eye troubles. A man consulted him regarding a severe and increasing headache from which he had been suffering during three months. Some weeks before he had been to one of the large optical houses because of some trouble with his eyesight, and had glasses prescribed for him by an "optometrist." He did not have a refractive error of consequence, but a high grade of choked disc in both eyes and was suffering from brain tumor. "Of course," says the author, "a decompression operation three weeks ago would have preserved much more sight than can be expected now." The author places blame for this loss of valuable time on the legal recognition of optometrists in this State. "No person," he adds, "should be recognized by law as competent to treat disease until he has been thoroughly trained in the science of diagnosis. This, for every specialty, no matter how small, as a minimum training, the present course of instruction in the whole of medicine required of candidates for license as physicians. No part of the human body can be arbitrarily separated from its vital connection with the whole organism."

The Supposed Conversion of Calomel.

Schaefer (*Med. Press*) says that the belief that the gastric juice, the alkaline chlorides, and certain acidulous drinks convert calomel into corrosive sublimate is erroneous. A number of quantitative and qualitative chemical experiments seem to prove his contention and additional evidence collected as the result of investigations made on animals confirm the view. It appears to be established that calomel is not converted into corrosive sublimate, but is decomposed by the alkaline secretions of the small intestine and pancreas, to form the gray, black, and red oxides of mercury, which are soluble in the alkaline fluids. It has been also supposed that when calomel is vigorously triturated in a mortar for some time with white sugar a trace of corrosive sublimate is formed, occasioned by impurities with which it is liable to be contaminated. In this instance, also says the author, no free corrosive sublimate is produced.

The Modern Materia Medica.

Alcola, a preparation exploited for the treatment of dipsomania, consists of three kinds of tablets which, according to Mezger contain respectively (1) milk sugar, caffeine and strychnine; (2) milk sugar, ferric oxide and strychnine; and (3) tartar emetic, calcium, magnesium, sulphuric and hydrochloric acid and traces of ferric chloride.

Capsulæ Laxativæ, Foelde, are said to contain castor oil, croton oil and the extracts of aloes, jalap and cascara sagrada.

Digestin is a digestive ferment prepared in Japan from the okazaki fungus. It is a fine yellow powder and is said to possess powerful digestive properties, acting on milk, fibrin and starch in acid, alkaline and neutral solutions.

Dorema, exploited as a remedy for "strengthening the nerves" is said to contain gluten, milk sugar, sodium bicarbonate, lecithin, hemaglobin, iron glycerophosphate, calcium and magnesium salts, and powdered cocoa.

Eleptin is another name for *epileptin*.

Epithelisierungsbinden (bandages) is another name for epidermol bandages.

Ergoxanthin is a new active principle of ergot. It is said to have a powerful influence on the blood-pressure.

Eubelein is the name of a new cholagogue. It is prepared from gall rich in glycocholic acid and is marketed in the form of capsules.

Guaiaicolin is a syrup of guaiacol containing 5 per cent. by volume of the latter.

Hycol is described as a "diluted tar product containing 38 per cent. of phenoloids." It is exploited as a disinfectant.

Hyposarcine is said to be an extract of the muscles of horses and occurs as a palatable syrupy liquid.

Kresosteril is said to contain m-cresol-o-oxalic acid ester. It is marketed in the form of tablets consisting of 70 per cent. of cresol and 30 per cent. of oxalic acid. It is offered as a disinfectant.

Lecimorol is phosphorated cod liver oil with lecithin.

Leucocedin contains tannic acid (kino) and alum.

Maltropon is a combination of the albumin *tropon* with malt and lecithin. It occurs as a brownish liquid.

Mencedin is the name of tablets said to contain fluid extract of golden seal and cotarnine.

Medicoizal is a 40 per cent. solution of purified izal. (Izal is a preparation similar in composition to compound solution of cresol.)

Nervifirmit is said to be similar in composition to *dorema*. (See above.)

Omnopon is the English name for *pantopon*, a preparation of the opium alkaloids.

Plantaginol Baur, exploited as a remedy for whooping cough, is said to contain codeine phosphate, potassium guaiacolate, bromides, syrup of ipecac and "honey of plantain."

Rella-Tee is another name for *species rosella*.

Riba is an albumin preparation prepared from

fish. It occurs as a greyish hygroscopic powder, consisting, it is claimed, chiefly of albumoses and almost free from purine bases, creatinine, etc.

Salzberg Schwegel Schlamm (sulphur mud) occurs as a gray powder uniformly miscible with water. It is put forward as a medium for absorbing exudates.

Sanguifer is said to contain iron peptonate, calcium glycerophosphate, kola, and cinchona.

Thrasaetus, exploited for the treatment of rheumatism and gout, is said to contain oil of eucalyptus, oil of juniper, olive oil, horse-marrow and camphor.

Undinol, used for preparing medicated baths, is said to be a soap solution, free from alcohol and containing oils and extracts of coniferous plants.

Veril is an anthelmintic in the form of tablets, which contain areca nut.

Vocalin are tablets said to contain extract of licorice, sugar, and traces of oil of peppermint.

Clear Lime Mint Drops.

Crystal A sugar.....	2 pounds.
Cream of tartar.....	1 teaspoonful.
Tartaric acid.....	2 ounces.
Oil of lime.....	1 ounce.
Oil of peppermint.....	½ ounce.
Chlorophyl	enough.

Mix the sugar, the cream of tartar and the water in a suitable pan. Put the pan on the fire and stir the batch until the sugar is dissolved; cook to 335° F.; pour the batch out on a greased marble slab and allow it to cool. Work in the color, the acid, and the oils. Fold the batch over and over again until it becomes homogeneous in color and is cool. Cut into drops of the required size.

Chicken Tonic.

In Britain the agricultural officials and experts are testing their theory that the addition of mineral salts to the food of chicks lessens the mortality and increases their development. According to the *Journal* of the board of agriculture this is the accepted mixture:

Sodium chloride.....	30 parts.
Sodium phosphate.....	9 parts.
Calcium fluoride.....	1 part.
Ferrous sulphate.....	1 part.
Bone-ash	30 parts.
Chalk	14 parts.
Magnesium sulphate.....	10 parts.
Charcoal	2 parts.
Sublimed sulphur.....	3 parts.

Methylene Blue Paste.

The *Deutsche medicinische Wochenschrift* gives the following formula for methylene blue paste oftentimes prescribed by dermatologists:

Methylene blue.....	2 grammes.
Zinc oxide.....	12 grammes.
Bismuth subnitrate.....	12 grammes.
Petrolatum	12 grammes.
Wool-fat	30 grammes.
Distilled water.....	15 c.c. (mils).

Notes and Queries.

NOTICE.—It is desirable that all questions to be answered under this head should be received before the fifteenth of the month and they must be accompanied with the name and address of the writer.

Queries are not answered by letter. The information supplied in these columns is intended for the benefit of our readers in general, not for the profit of the individual inquirer only.

Emulsion of Iodoform.—A. B. R., New York.—Generally speaking the so-called "emulsions" of iodoform used in orthopedic practice and (diluted) in cystic affections are suspensions of the drug in glycerin. Many formulas are extant, although the simple mixture of 1 part of iodoform and 9 parts of sterile glycerin is doubtless entirely satisfactory for injection into sinuses; for use as a bladder antiseptic it should be diluted with about 40 parts of sterile warm water.

The following formulas, the second of which gives a preparation somewhat emulsion-like, are from the British Pharmaceutical Codex:

I.

Iodoform in fine powder..... 10 grammes.
Glycerin 70 c.c. (mils).
Distilled water..... 20 c.c. (mils).

Rub the iodoform to a smooth paste with the glycerin, and add the distilled water.

II.

Iodoform, in fine powder..... 10 grammes.
Alcohol 2 c.c. (mils).
Tragacanth, in powder..... 1 gramme.
Distilled water enough to make 100 c.c. (mils).

Rub the iodoform to a smooth paste with a mucilage prepared by mixing the tragacanth with the alcohol and water.

Squire's Pharmacopœias of the London Hospitals gives six formulas in use in eight medical institutions. The directions at the Royal Chest Hospital are to sterilize the iodoform by soaking it in a 1-in-20 solution of phenol; decant the fluid; and shake the iodoform with the previously sterilized glycerin.

A mixture of iodoform introduced by von Mosetig and once largely used in this country and Europe as a bone plug is known as Moorhof's bone wax. It has the following formula:

Iodoform 20 parts.
Spermaceti 40 parts.
Sesame oil..... 40 parts.

Heat the ingredients together slowly to 100° C., and allow the mixture to cool while stirring. For use it is heated to 50°.

A Difficult Pill.—G. W. M., California, has had difficulty in finding a satisfactory excipient for a pill made according to the following formula:

Powdered opium..... 5 grains.
Powdered camphor..... 8 grains.
Phenyl salicylate..... 24 grains.

Mass and divide into eight pills.

He has used compound tragacanth powder, but this makes the mass too bulky.

We have experimented with powdered licorice, soap, kieselguhr, cacao butter, and several other excipients, alone and in various combinations, but have been unable to make a pill much less than one-fourth of an inch in diameter. We have two suggestions

to make: One is that the querist try to induce the prescriber to permit the mass to be dispensed in capsules; the other, that he experiment with the following mode of procedure:

Triturate the phenyl salicylate with the camphor until a homogeneous oily liquid is obtained; mix this intimately with 20 grains of Roe's excipient, melted; beat in the powdered opium; allow the mass to stand for a time and stiffen it with a mixture of licorice and compound tragacanth powder.

In manipulating masses of this sort, time is a factor too often overlooked. A fresh mass made with compound tragacanth powder, and entirely too soft to handle, will, after standing a while, acquire a workable stiffness.

Roe's excipient is made as follows:

Soak 4 drams of gelatin in warm water for a few minutes; drain it and put in a suitable vessel with 1½ drams of glycerin. Heat on a water bath until melted; then stir and bottle.

The Best Nostrums for Certain Troubles.—M. D. C., Hawaii, sends the following naïve request:

In the interest of a suffering public we desire to obtain from you information as to the highest class and most efficacious cure for the disease of asthma, and the name of the firm or house who manufactures same, with the purpose of securing the sole agency of the remedy for sale in this Territory of Hawaii.

Also an emmenagogue which has stood the test of clinical experience and recognized as the standard.

Trusting to receive this information at your hands at earliest convenience, and thanking you in advance for humanitarianism."

We are sorry to have to say that we are unable to supply the desired information, and the reason for our inability should suggest itself to any druggist who gives the matter serious thought for a few moments.

Asthma is a manifestation which frequently baffles the skill of the best physicians who are called upon to treat patients suffering with it, and perhaps no two cases should be treated exactly alike, for not only the varying phases of the disease itself, but the idiosyncrasies of the patient must be taken into consideration if the best effect is to be obtained. If, then, a competent physician who is familiar with the case and sees the patient from time to time and uses his best judgment in varying the treatment as necessity arises, does not always get results which are satisfactory to all concerned, how can it be possible for some nostrum manufacturer who has never seen the sufferer and knows nothing about the peculiarities of his case, to be able to prescribe a single remedy which will fit it and thousands of others partly like it and partly different?

The same question might be asked with at least as much if not even greater propriety concerning the other remedy requested and the complaint for which it is to be used.

"In the interest of a suffering public"—which has already suffered too long at the hands of nostrum manufacturers whose principal asset is public ignorance—we suggest that druggists use their influence to send sufferers from asthma and other ills to those who are legally authorized and presumably professionally equipped to diagnose their cases and prescribe remedies for their relief. The man who undertakes to diagnose and prescribe when he has not completed a course of study which entitles him to legal

recognition as an expert in the practice of medicine, thereby becomes a quack and may justly be regarded as a faker; and his status is not changed by his surroundings, no matter whether they be the luxurious fittings of a suite of offices in a large manufacturing establishment, rows of bottles over a prescription counter, or the gaudy trappings of a mountebank's cart at a county fair.

Banana Liquid and Gold and Aluminum Paint.

—H. F. A., New York, wants a formula for banana liquid such as is used for a vehicle for gold, aluminum, etc., in painting, and a liquid for the same purpose but devoid of the disagreeable odor of the former.

Information on this and a thousand other subjects of interest to painters and dealers in paints, is contained in a book entitled *1,000 More Paint Questions Answered*, published by *The Painters Magazine*, this city, and sold for \$3. In this book we find two ways for making banana liquid set forth, the first one of which is as follows:

One pound of gun cotton is dissolved in 1 gallon of acetone, and to that solution is added 2 gallons of amyl acetate and then 2 gallons of benzin. Of course no druggist should undertake the manufacture of such a preparation until he has taken all the life, accident and fire insurance he can get, put his business in good order, forgiven his enemies, and made his will; that is, unless he is especially equipped for the undertaking.

In making the gold or aluminum paint, about a pound of gold bronze or $\frac{1}{2}$ pound of aluminum bronze is used to the quart of the liquid.

To make an aluminum paint without the use of banana liquid place in a suitable vessel 4 ounces of finely powdered magnesium carbonate and 2 quarts of best pale coach varnish. Stir well, and gradually add 7 quarts of oil of turpentine. This is best done on a water-bath. After the mixture has cooled and the magnesium salt has settled, decant the liquid and stir in the aluminum bronze, in the proportion of about 6 or 8 ounces to the quart.

White Paint for Golf Balls.—S. D. C., Nebraska.

—One of the points of superiority claimed for their wares by several of—if not all—the makers of golf balls is permanency of coloring. From this we take it that the making of a suitable paint is somewhat more difficult than is the compounding of white-wash. The writer's acquaintance with the sprightly "gowf baul" does not embrace a knowledge of the ingredients of its "complexion;" however, we have seen the following formulas put forward as representing the coat that makes the golf ball visible:

I.

Celluloid enough.
Acetone some.
Zinc oxide.....the required quantity.

Dissolve in some acetone enough celluloid to make a varnish; color this with sufficient zinc oxide.

II.

White lead, ground in oil..... 1 part.
Zinc white, ground in oil..... 1 part.
Ultramarine blue..... enough.
Coach varnish (without drier)..... enough.
Mix the pigments, and thin them to the desired con-

sistency with the varnish, adding a little ultramarine blue to neutralize the yellow tint of the coach varnish.

No drier should be used in these paints as it destroys the elasticity of the film and lessens its wearing properties.

Carbona.—H. W., New York.—We do not know the composition of this preparation, but suspect it to consist largely of carbon tetrachloride. Various notes on the uses and dangers of the last named liquid have appeared in the CIRCULAR during the past four or five years. This liquid is a non-inflammable cleaner, but one whose fumes (heavier than air) are said to be as dangerous as those of chloroform.

Here is a formula devised by a number of the CIRCULAR staff which has given satisfaction:

Non-Inflammable Clothes Cleanser.

Rosin soap.....	1 pound.
Common white soap.....	1 pound.
Potassium hydroxide.....	3 ounces.
Alcohol	8 ounces.
Carbon tetrachloride.....	5 pints.
Water	enough.

Melt the soaps together on a water-bath, adding to them a little water from time to time, as required. Dissolve the potassium hydroxide in the alcohol; add to this solution $1\frac{1}{2}$ pints of carbon tetrachloride, and incorporate the liquid in the soap mass, beating the whole with an egg beater. Transfer the pasty mass to a suitable bottle, add the rest of the carbon tetrachloride and mix the whole by agitation. The compound should at once be transferred to wide-mouthed bottles of the size desired for the market and these immediately corked tightly.

Sometimes a portion of the carbon tetrachloride separates from the "cream" on standing, but it can be incorporated quite easily by shaking before using.

In the CIRCULAR for October, 1910, pages 501 and 514, are notes on cleaning preparations which may prove of value in this connection.

Bijou Cleaning Fluid.—Herbert P. Harrison, Rhode Island, seeing the note on this subject in last month's CIRCULAR, page 634, is kind enough to send the following formula:

Ether	1 dram.
Chloroform	1 dram.
Alcohol	2 drams.
Oil of wintergreen.....	1 dram.
Benzin	2 pints.

This mixture is very inflammable and should be made and used with the utmost caution.

We thank Mr. Harrison for the information as well as for his kindness, and hope he will put us under further obligations to him.

Therox.—"Thymol," Ohio.—We do not know the composition of this preparation, but if it is one of the "fakes" of the "beauty specialty" class, it is a good thing for druggists to leave to the woman's department of the daily papers.

Insect Powder.—E. J. C., Pennsylvania.—Our understanding is that the powder you mention is simply ground pyrethrum flowers, but it has an odor which suggests hellebore to some.

Peterman's and Other Roach Foods.—T. M., New Hampshire.—As a result of analyses of Hooper's and Peterman's roach foods made by him and published in the CIRCULAR for October, 1889, page 219, Dr. R. G. Eccles stated that a typical formula for this class of preparation was:

Borax 37 parts.
Starch 9 parts.
Cocoa 4 parts.

Another formula which a member of the CIRCULAR staff has used in making a successful preparation, is:

Antimony and potassium tartrate.... 1 ounce.
Borax 4 ounces.
Powdered sugar..... 4 ounces.

Owing to the fact that this is quite poisonous to humans as well as to animal pets, its general use is not recommended.

Emmett Powers wrote to the CIRCULAR that in experimenting along the roach-destroying line, he found that a mixture of equal parts of insect powder and borax will destroy more roaches than any powder in the market, and will do its work in less time than the others take.

In the CIRCULAR for March, 1906, page 83, a contributor said that he had found the following combination the best:

Insect powder..... 1 part.
Borax 10 parts
Starch 1 part.

The starch, he said, made the powder stick to the body of the insect; the insect powder was the active ingredient; and the borax was a diluent, but of doubtful efficacy otherwise. The CIRCULAR took issue with him on the latter point, as borax alone has been known to be effective in ridding a room of roaches.

A different kind of formula in which a fluorine salt is exhibited, was contributed to the CIRCULAR some time ago by that successful manufacturing chemist and ingenious deviser of formulas, Dr. J. S. Brewer, who says that the fluorides have a peculiarly toxic effect upon the insect. It follows:

Silex 22 parts.
Sodium fluoride..... 40 parts.
Sodium chloride..... 10 parts.
Sodium carbonate, dried..... 5 parts.
Sodium sulphate..... 10 parts.

In the CIRCULAR for July, 1909, page 340, is an abstract of a government bulletin on roaches.

Miles' Nervine.—L. V. D., Missouri.—We do not know the formula of this preparation. Under "Appeals to Readers" we sought information concerning it last year, but without result. The only good that the possession of the formula would do a druggist, so far as we can see, is that it would put him into a better position to warn possible purchasers concerning the true nature of the preparation. To aid druggists who desire to perform this service we point to the decision of Judge Macfarland, of Pittsburg, rendered in the case of the Dr. Miles Medical Company vs. the May Drug Company. This decision appears in full in the CIRCULAR for April, 1906, page 143, and a note on the subject is given in the issue for July of the same year, page 278. The Miles people sought to enjoin the May company from selling certain of their goods, and the judge said, first, that "it seems

that the defendants should be enjoined but for other facts and conclusions of law." He then went on to say, secondly, that the advertisements of certain of the Miles goods were unlawful, and added:

Third: The false statements of the plaintiff bar its action.

Fourth: The business of the plaintiff is contrary to public policy.

This court decision ought to prove even more efficient as a deterrent to those who would buy the stuff than the formula, as the public can understand the meaning of what the judge said, while the formula of the medicine might be utterly unintelligible to them.

Elixir of Lactated Pepsin.—F. A. L., Florida.—Perhaps the most extensively "advertised" formula in the National Formulary is the one for compound digestive elixir, which is the formula for an elixir of lactated pepsin. The wide "advertisement" of this formula has grown out of the fact that pharmaceutical physiological chemists have said that the preparation is inert on account of certain incompatibilities in it, and members of the American Medical Association have called upon the American Pharmaceutical Association to delete the formula. Many pharmacists, on the contrary, have said that so long as physicians persist in prescribing such a preparation, inert or "therapeutic monstrosity" though it may be, the pharmacists want an official formula for it. The chemists' criticism applies to the proprietary elixirs as well as to the official one, and the latter is probably as good, or as bad, as the other kind.

Thirty-odd years ago Prof. Emil Scheffer read a paper before the American Pharmaceutical Association (see the CIRCULAR for March, 1877, page 52) in which he pointed out the incompatibility of pepsin, pancreatin, and diastase.

M. I. Wilbert, in a paper on the elixirs in the National Formulary (see the CIRCULAR for February, 1910, page 62), speaks fervently of "our own lack of development as pharmacists, of our inefficiency as scientists, of our inability to keep ourselves fully informed on the progress that is being made in other branches of the science of medicine."

Commenting on the particular elixir in question, John K. Thum (see the CIRCULAR for March, 1910, page 128) says that its formula should be retained in the National Formulary as the albuminoids it contains make certain salts administered with it more acceptable to the stomach. He recommends, however, that the therapeutic name of the elixir be changed.

Prof. W. L. Scoville (see the CIRCULAR for April, 1907, page 294) says of the compound digestive elixir: "Scientifically the mixture is absurd, and its use should be discouraged. The same is true of compound powder of pepsin."

Lactopeptine.

According to a published report of the council on pharmacy and chemistry of the American Medical Association, lactopeptine contains more than 90 per cent. of milk sugar, only small amounts of pepsin, no hydrochloric acid or mere traces only, and no diastase or pancreatin. It "corresponds to a weak saccharated pepsin," says the council, and "the claims made as to its therapeutic value are unwarranted, exaggerated and misleading." Speaking of this report the editor of the *Journal of the American Medical Association* says that it has been repeatedly demonstrated that diastase and pancreatin are destroyed by pepsin

in the presence of acid, and "that the manufacturer should have attempted to manufacture such an impossible product, and that the medical profession should have accepted it, is not creditable to either party concerned." What is true of lactopeptine is true of a number of other preparations made by manufacturing pharmacists which are intended to replace it.

According to the patent under which lactopeptin was manufactured, which patent has long since expired, it consisted of—

Sugar of milk.....	40 ounces.
Pepsin	8 ounces.
Pancreatin	6 ounces.
Vegetable diastase.....	4 drams.
Lactic acid.....	5 drams.
Hydrochloric acid.....	5 drams.

An elixir of lactopeptin may be made by dissolving 640 grains of this mixture in a pint of aromatic elixir.

Formulas for elixirs of lactated pepsin, offered as improvements on the official one, are given in the issues of the CIRCULAR for June, 1910, page 278; August, 1909, page 400; December, 1908, page 618; and March, 1908, page 125. One of these, by George M. Beringer, is as follows:

Compound Elixir of Pepsin.

Pepsin (soluble "scales or granular" variety).....	15 grammes.
Pancreatin	15 grammes.
Diastase	1 gramme.
Lactic acid.....	1 c.c. (mil.)
Hydrochloric acid.....	2 c.c. (mils.)
Glycerin	250 c.c. (mils.)
Alcohol	200 c.c. (mils.)
Oil of orange.....	2 c.c. (mils.)
Cudbear	1 gramme.
Water.....	enough to make 1,000 c.c. (mils.)

Mix the acids with the glycerin and 500 c.c. (mils) of water, add the pepsin, pancreatin and diastase, and macerate with occasional agitation until solution is effected. Then add gradually the alcohol, in which the oil of orange has been dissolved, agitating after each addition. Now add the cudbear and sufficient water to make the preparation measure 1,000 c.c. (mils). Macerate for six hours, with occasional shaking, and then filter.

The formula in our issue for last June does not call for pancreatin or diastase.

Cheap Soap Powder.—D. F. M., Indiana.—You will find a number of formulas for soap powder in the issues of the CIRCULAR for November, 1909, page 589; and March, 1907, page 270. One of these is repeated herewith:

Hard soap.....	5 parts.
Soda ash.....	3 parts.
Sodium silicate.....	2 parts.
Borax	1 part.

Miscibility of Cresol Solution with Water.—Ernest K. Rains, Illinois, referring to a note on this subject in the CIRCULAR for November, 1910, page 577, speaks with enthusiastic approval of the process for making a water-soluble solution of cresol described in a communication from Prof. G. L. Secord published in the CIRCULAR for June, 1910, page 281.

Is There Any Morphine in Opium?—F. G. E., New York, seems not to be satisfied with the note in last month's CIRCULAR, page 633, in reference to the sale of morphine in this city. The part to which he objects is the following paragraph:

As to the point raised by our correspondent that the ordinance prohibits the sale of preparations containing morphine but does not apply to preparations containing opium, we would say that it is unworthy of a boy who has been one year in the drug business; that is, unless F. G. E. assumes that in the manufacture of paregoric, brown mixture and the rest of the opium preparations, a gum is used from which the morphine has been extracted.

He now writes: "The question that the unworthy boy would like to get you to answer is—If opium has about 25 constituents each having a chemical formula resulting from the action upon it of chemical reagents, would like to know *can morphine be separated without adding a reagent to produce it.*" The question is here given exactly as he wrote it, punctuation, spelling and italics. At first reading it (the question itself) seems to be all right, but upon careful examination we find that it runs a close second to the late Coudrey bill, which no one could treat seriously. In its English construction it reminds us of a bill introduced in congress "to pension the surviving officers and enlisted men and their widows who served in the Indian wars." Just how surviving men could have widows and whether or not these widows served in the wars, the bill does not explain; and this query leaves us in doubt as to several things.

As near as we can gather from his question, F. G. E. wants to know whether or not morphine or any salt of morphine actually exists in opium as morphine or a salt of morphine. The Pharmacopœia states that opium "yields" morphine. This is non-committal, as a cow *yields* milk, which exists in the cow as milk, and the ground *yields* corn, which does not exist in the ground as corn.

The Standard Dispensatory, under "Morphine," says: "Morphine is the principal alkaloidal constituent of opium, in which it occurs both as sulphate and meconate"; and under "Opium," speaking of its alkaloids, it says: "It is now pretty well established that they exist in opium partly as sulphates and partly as acid meconates."

The United States Dispensatory, under "Opium," gives this information: "According to the views of its constitution at present accepted, it contains: 1. Morphine, $C_{17}H_{19}NO_3$," etc.

From the British Pharmaceutical Codex: "Morphine, $C_{17}H_{19}NO_3 \cdot H_2O$, is the principal alkaloid occurring in opium, in which it exists in combination with meconic acid (and probably also sulphuric acid) to the extent of from 4 to 20 per cent. or even more." And in another place: "It exists in combination with acids (meconic and sulphuric) in the form of salts readily soluble in water."

From Caspari's Pharmacy: "Morphine is present in opium in varying quantities. . . . It was formerly supposed to exist in combination with meconic acid only, but is now [1910] known to be present largely, if not altogether, as sulphate."

These authorities, and others, seem to settle the question in the affirmative.

Cleaning Fluid.—"Thymol," Ohio.—See the answer to H. W., New York, under the heading, "Carbena," on page 28.

Perfecting a Cold Cream for Commercial Purposes.—M. K., New York.—In the CIRCULAR for July, 1906, page 241, is an article by a successful manufacturing pharmacist on toilet preparations, in which a number of formulas are given. The writer states that he supplies two cold creams, one for general toilet use and one which is sold for theatrical purposes only. The latter is sent out soft and greasy, and so made that a small quantity covers a large space. The formula for the first kind is as follows:

Cold Cream.

Liquid petrolatum.....	1 gallon.
Soft petrolatum.....	7 ounces.
Hard paraffin.....	7 ounces.
White wax.....	2 pounds.
Borax	2 ounces.
Glycerin	2 ounces.
Water	5 pints.
Perfume	enough.

The white wax is first melted in a water-bath (no higher heat must be allowed), then the hard paraffin is introduced, after which the soft and liquid petrolatums are added. The borax is dissolved in water and the solution brought to 140° F. (about the degree of heat the melted solids and liquid petrolatum will be found to possess). The two liquids are next mixed, their container placed in ice water, and stirred briskly until cold, the glycerin and perfume being added.

The addition of hard paraffin to the cream gives it a gloss and a "silky" finish which is quite a feature when appearance is considered.

The formula for theatrical cold cream which the manufacturing pharmacist has found popular is as follows:

Theatrical Cold Cream.

Spermaceti	1 pound.
White wax.....	3 pounds.
Liquid petrolatum.....	2 gallons.
Borax	4 ounces.
Water	1 gallon.
Perfume	enough.

This is a soft cream designed especially to spread easily and quickly, and seems to meet the demand of "the profession."

In putting a preparation on the market, of course much depends upon the appearance of the finished package, while proper advertising is an essential to its success.

Westphal's Auxiliator.—A. L., New York.—In the *Sanitary Bulletin*, for April, 1907, issued by the New Hampshire Board of Health, there is a good deal about nostrums for the hair and scalp. We quote the note on Westphal's auxiliator:

Shows 3.56 per cent. of residue on evaporation, largely glycerin, with borax, or boric acid. No alkaloids or vesicants were detected. The analysis shows 54.8 per cent. of alcohol, of which 20 per cent. (i. e., 10.96 per cent.) was found to be methyl, or wood alcohol.

The latter as is now well known is an active poison, and blindness has resulted from exposure to its vapor.

The preparation now on the market may or may not be the same as the one sold under the same name in 1907. Indeed it is no uncommon thing for nostrum manufacturers to change the composition of their goods. An ability to do this at their convenience

without having to explain to anybody is one of the beauties of secrecy in the manufacture of medicines—from the manufacturers' standpoint; the public be hanged!

Depilatories.—M. B., New York, wants to know how to prepare a powder that may be moistened and applied to the beard and in a few minutes scraped off with a dull instrument and leave the face as if it had been shaved. The powder must have no disagreeable odor and its use must not leave the face sore.

We fear we are not able to supply the information. A depilatory powder whose formula is well-known and has often been printed in the CIRCULAR, is composed of—

Barium sulphide.....	3 parts.
Powdered starch.....	3 parts.
Zinc oxide.....	4 parts.

This is to be applied as set forth above, but we do not recommend it as being in other respects what our querist specifies; indeed, on the contrary, we have heard of untoward results caused by its use.

A somewhat more extended note on the subject of depilatories appears in the CIRCULAR for September, 1910, page 370; and by use of the annual indexes for the past few years many others may be located.

Reciprocity between Boards of Pharmacy.—F. S., District of Columbia, asks: "Will you kindly inform me what States or cities have reciprocity with the District of Columbia on registration certificates and what are the conditions governing the same?" He puts his question in three lines and it probably did not take him over three minutes to write, sign, address, seal and stamp his letter. To collect the data necessary to answer it would take more than three weeks and perhaps as much as three pages of the CIRCULAR would be required to present it to our readers. We would not begrudge the labor of collecting and classifying the facts, or the space they would occupy if printed, if the good to be accomplished by their publication were proportionate to the outlay. But we think it would not be. We undertook something of this kind a few years ago, and after we had written to the secretaries of all the boards of pharmacy in the country (to some of them more than once), and had received answers from them, with many of which were enclosed copies of the rules and regulations of the board or a copy of the pharmacy law of the State, which we were supposed to "read, mark, learn, and inwardly digest," we concluded that the best thing for us to do with the material collected was to make a brief summary of it for publication. This we did, as will be seen by reference to the CIRCULAR for July, 1908, page 319. This summary includes references to college diplomas as well as to board licenses.

The size of the task referred to is due largely to the fact that those boards which accept certificates of other boards in lieu of examination do so under such varying conditions. In most, if not all, cases the prime condition is that the board whose certificate is accepted shall reciprocate the courtesy. It may be that some board will "recognize" a certificate in lieu of an examination when that certificate was obtained by the candidate by passing an examination, but will not do so when it was obtained on account of the fact

that its holder was in business at the time the law for his State was enacted, or because he is a college graduate; or it may be that the certificate will not be recognized unless its holder averaged 5 per cent. more in his examination than the minimum required by the board which issued it, or is so old, or has had so many years of experience. These regulations vary from time to time in the same board, and the pharmacy laws themselves are frequently amended, so that data collected one year may be out of date the next. Therefore the only safe and satisfactory way for a licentiate (or graduate) in pharmacy to do when he wants to engage in his vocation under the jurisdiction of a board other than the one whose license he holds, is to write to the secretary of the other board, telling him all the particulars of the case, and ask him how best to proceed further. He will have to write to the secretary eventually anyhow, or call on him, and so he will be saving time to do this in the first place. We publish every month a list containing the names and addresses of the secretaries of the various boards of pharmacy in the country.

According to the summary hereinbefore alluded to, the boards which practice reciprocity in some form or other, are those of Alabama, Arizona, Arkansas, Connecticut, District of Columbia, Florida, Georgia, Idaho, Indiana, Kentucky, Louisiana, Maryland, Massachusetts, Michigan, Nevada, North Dakota, Ohio, Oklahoma, Oregon, South Dakota, Texas, Vermont, Virginia and West Virginia. The National Association of Boards of Pharmacy, under the egis of the American Pharmaceutical Association, is working, with moderate although encouraging success, to reduce reciprocity between boards of pharmacy to a system. Then there are associations of boards of pharmacy of a more or less local nature organized largely for the purpose of fostering reciprocity between their members. There is such an association composed of the boards of the New England States, and only last month (page 666) we chronicled an annual meeting of the Interstate Association of Boards of Pharmacy, composed of the boards of the States of Kentucky, Indiana, Ohio, Michigan, Wisconsin, Minnesota and Illinois; and also mentioned (page 667) that the Southern Association of Boards of Pharmacy had recently held a meeting at Atlanta. At both meetings the subject of interchange of board certificates was one of the principal subjects discussed.

Under the laws of this State no pharmacist is licensed unless he had a certain specified preliminary education before attending a college of pharmacy, and is a graduate of a college of a certain specified standing. Naturally the New York board does not reciprocate with boards maintaining a lower standard, which means any other board in the country, with possibly one or two exceptions.

Hall's Hair Renewer.—T. R. P., Indiana, wants us to give him some idea of the old formula of Hall's hair restorer. We do not know this preparation at all, but in the CIRCULAR for September, 1887, page 205, is a note to the effect that Hall's hair renewer is believed to consist essentially of sulphur and lead acetate, in water and glycerin. A warning as to the poisonous nature of the lead is therein given.

In the *Sanitary Bulletin* of the New Hampshire Board of Health for April, 1907, (see the CIRCULAR for September, 1907, page 589), is an article on prepa-

arations for the hair in which it is stated that an examination of Hall's hair renewer showed glycerin and sulphur, while tests for alcohol, heavy metals, skin irritants, borax, etc., resulted negatively. Says the *Bulletin*: "This sample does not appear to represent the old formula; neither is it the new, now advertised as put up in a different styled package, and said to include glycerin, boroglycerin, capsicum, bay rum, sulphur, tea, rosemary, alcohol and perfume."

Tasteless Castor Oil.—J. B. D., Missouri.—Look in the annual index to the CIRCULAR bound with last month's number, and you will find references to three notes and formulas on this subject, one being in the December issue, page 620; one in the October issue, page 507; and one in the March issue, page 113. Then take down your annual index for 1909, in which you will find five references to this subject, the notes and formulas themselves being in the issues for December, page 632; October, page 514; April, page 185; February, page 82; and January, page 23. In the annual index for 1908 there are three references, one of them being to a note in which several formulas are given. In 1907 it seems that we gave the subject a temporary rest after the five references to it the year previous, when we printed eight or ten formulas for the preparation and two somewhat extended articles on the subject.

It would seem from this—to go back no further—that it is through no fault of ours that all our readers have not learned how to prepare so-called tasteless castor oil.

You do not state whether you want a preparation for dispensing by the dose or one for general family trade, so we give you a formula—one of the many referred to above—for a prepared castor oil that may be sold either way:

Castor oil.....	12 ounces.
Fluidextract of licorice.....	½ ounce.
Fluidextract of sarsaparilla.....	3 drams.
Oil of peppermint.....	2 drops.
Oil of anise.....	8 drops.
Oil of lemon.....	8 drops.
Glycerin.....	enough to make 16 ounces.

Those who keep their copies of the CIRCULAR and bind them do not have to write for such formulas as this and then wait until the next month for an answer.

Black Waterproof Drawing Ink.—S. B., Texas.—In a note on "Show-Card Ink" in the CIRCULAR for June, 1910, page 280, appear several formulas for marking inks, one of which is given herewith in the hope that it may suit you:

Brown shellac.....	4 drams.
Alcohol.....	4 ounces.
Borax.....	7 drams.
Distilled water.....	6 ounces.
Water-soluble nigrosin.....	12 grains.

Dissolve the shellac in the alcohol, and the borax in the water with the aid of heat. Pour the alcoholic solution slowly into the aqueous solution, stirring constantly. When cool dissolve in the liquid the nigrosin.

Another formula directs that equal parts of shellac, borax and acacia be boiled together in enough water to make a solution of the proper consistency, which is to be colored by the addition of water-soluble anilin dye of the desired color.

Coloring Bay Rum.—In the Circular for October, 1910, page 516, F. O. Collins, New York, said that filtering bay rum through magnesium carbonate gave it a satisfactory color. In the December issue, page 635, John J. Davies, Pennsylvania, took issue with Mr. Collins, averring that bay rum so filtered would throw down a flocculent precipitate, and if again filtered would repeat this behavior, and so on ad infinitum. Said he: "Of all things, magnesium carbonate is the least desirable for this purpose. I find talcum the most satisfactory filtering medium there is."

Now comes George S. R. Wright, Pennsylvania, who adds this note to the discussion:

If Mr. John J. Davies, of Pennsylvania, will add powdered magnesium carbonate to his bay rum, in the proportion of 1 ounce to 1 gallon, and allow it to stand ten days or two weeks before filtering, he will obtain a beautiful clear and slightly green bay rum, which will never need refiltering. I have made it so for over thirty years, and write, therefore, from ample experience.

This ought to settle the matter—and Mr. Davies—and if it is not sufficient for this purpose perhaps the following communication from the man who introduced the subject will answer. Mr. Collins now writes:

I have much pleasure in sending you a sample of bay rum which has been once filtered through magnesium carbonate, and has stood some weeks. You will thus see that I have not experienced the inconveniences referred to by Mr. J. J. Davies in your December number as connected with the use of that salt as a filtering medium.

The sample sent by Mr. Collins is as pretty and clear a specimen of bay rum as anyone could wish to see, and is an acceptable Christmas present.

We trust the discussion of this subject has proven edifying to our readers generally and we thank those who have taken part in it. We hope there will be many more like it over other preparations.

Flavoring Compound Solution of Sodium Phosphate.—R. C. B., Virginia, desires a process for coloring and flavoring compound solution of sodium phosphate, preferring a lemon flavor and tint.

As a starter we suggest that the quantity of citric acid in the official formula be increased to 180 grammes and that the following mixture be added in place of an equal portion of distilled water:

Terpeneless oil of lemon..... 20 minims.
Alcohol..... enough to make 4 drams.

The solution should be shaken with a little paper pulp before it is filtered.

For the color we suggest a few drops of liquid caramel and a drop or two of a weak solution of indigo sulphate.

Some five years ago F. P. Robinson contributed to the *Bulletin of Pharmacy* the following formula for a palatable concentrated solution of sodium phosphate:

Sodium phosphate, anhydrous..... $6\frac{1}{2}$ ounces.
Tincture of fresh lemon peel..... 1 dram.
Phosphoric acid 85-per cent..... 960 grains.
Glycerin 1 ounce.
Distilled water.... enough to make 1 pint.

Dissolve the salt in a mixture of the water and the acid; add the glycerin and the tincture, and filter.

Under the federal food and drugs act and the statutes of many of the States, neither of these preparations could be sold as compound solution of sodium phosphate.

Oil of Turpentine with Compound Tincture of Lavender.—J. E. P., Arkansas, writes: "The following formula has caused me much trouble. First, it turns very dark-colored after a short time; second, if the potassium iodide is left out it does not turn so dark, but even then it is darker sometimes than I want it. My trouble is one of a color change. I have tried emulsine instead of acacia."

Here is the formula:

Potassium iodide..... 32 grains.
Rectified oil of turpentine..... 2 drams.
Compound tincture of lavender.... 2 drams.
Powdered acacia..... enough.
Syrup..... enough to make 4 ounces.

Make an emulsion.

Presumably the darkening of this mixture is for the most part due to the action of the oil of turpentine on the coloring matter in the tincture. Hence it might be largely obviated by omitting the compound tincture of lavender and replacing it as a flavor with a small quantity of a mixture of the oils of lavender, allspice and rosemary.

We take it that the tincture is employed also as a coloring agent. In this rôle it may be replaced by a small quantity of solution of carmine. As we are at a loss as to what shade would be satisfactory we cannot give proportions. A sample of the mixture prepared by us and colored with carmine retains its original color quite well for the short time we have had it under observation.

German Salve or Dutch Butter.—W. M. O., New York, asks: "Where did the name German salve or Dutch butter applied to green soap originate?" We referred this question to a known expert on the ancient names and ancient history of drugs, Otto Raubenheimer, whose reply follows:

Having made a specialty of the history of drugs, etc., and the etymology of pharmaceutical names, a most interesting study, I take pleasure in giving my explanation of the origin of the names German salve, Dutch or German butter and green soap.

The first authentic record of soap, and especially of soft soap, is found in the eighteenth volume of the great work *Historia Naturalis* by the celebrated Roman naturalist and historian Plinius (Pliny). When the Romans invaded Germany they found that the Germans prepared from the fat or tallow of goats and the white-burnt or calcined ashes of beechwood, by boiling and stirring, a preparation or ointment of butter-like consistency (therefore the name "Dutch butter" or better "German butter," called *sapo*). The old Germans originally used this as a toilet article, as a pomade or salve for the hair (therefore the name "German salve"), until it was discovered that by wetting the hair with water the soap also possessed cleansing properties.

Credit is also due to the old Germans for discovering that hard soap results when soft soap is treated with salt. The so-called salting-out process is used to this day in the manufacture of hard soap.

Green soap originated in France when hempseed oil, which has a bright green color, was saponified with potash.

Tablets for Indigestion and Dyspepsia.—F. W., Missouri.—These usually contain pepsin either alone or in combination with one or more such substances as nux vomica, charcoal, peppermint, sodium bicarbonate, bismuth subnitrate and extract of cascara sagrada. Just which is the best combination for any particular case the pharmacist should allow the physician to decide.

Extract of Coffee.—A. C., New York, wants to know "if there is a way of getting a formula for liquid coffee extract and turn it into powder form like such as malted milk."

In our boyhood days there was among the staples in the "company store" a coffee essence, a dark-brown, glossy mass packed in small pulp-board cylinders. This was chipped out somewhat as the apothecary dislodges fragments of a hardened solid extract, and used to fortify the infusion of torrefied rye, cow-peas, and sassafras buds that served as coffee in the homes of the less affluent, where real coffee was a rarity. Practically all that this essence had in common with coffee was a bitter, tannin taste. Presumably it was a chicory extract produced by evaporating a boiled infusion of that substance.

A liquid extract which under a fanciful name in some sections succeeded the old essence is said to have been made as follows:

Ground coffee.....	18 ounces.
Ground chicory.....	18 ounces.
Alcohol	6 ounces.
Glycerin	12 ounces.
Syrup	4 pints.
Water	enough.

Gently boil the coffee and the chicory in a covered vessel with 5 pints of water for about 5 minutes. When the infusion has cooled, strain through flannel pressing the marc and adding enough water to make 5 pints. Add the alcohol and the glycerin and then the syrup.

Such an extract might be incorporated with enough sugar of milk to make a powder, but it would scarcely taste like coffee.

We suggest that you proceed as follows:

Take 1 pound of ground coffee and place it in a Soxhlet extraction apparatus with 2 pints of water. Extract at about 105° C. for an hour. Collect the liquid and when it has cooled, mix with it sufficient of a mixture of equal parts of starch and sugar of milk to form a stiff paste. Rub this through a granulating sieve; allow the granules to dry spontaneously, and reduce the product to a powder of the desired fineness. The so-called "milk flour" might be found useful as a drier.

A water-soluble physiological extract of coffee used by Perrot in pharmacodynamic study is made as follows (*Bull. gén. de Therap.*):

Green coffee is deprived of its diastases by the action of alcohol vapor under pressure, then dried and pulverized. This powder is exhausted with 70-per cent. alcohol. The extract obtained by distillation in a vacuum in the cold is washed with ether, the resulting product being a yellowish hygroscopic powder, which contains all the caffeine of the coffee.

Scent for Traps.—H. L. H., New York.—The "Old Trapper" of our youthful days once in a burst of inebriated confidence informed us that his "beaver bottle" contained a mixture of dried "bark stones" (the castor of the *materia medica*), nutmeg and whisky. Doubtless any aromatized tincture of castor would serve as well.

These scents are in truth used more to conceal the "man smell" on traps than to attract victims—no trapper, however, will admit this to another person. "Nevair; bosh!" says Injun Joe, pointing knowingly

to his own superior cranium. "Deed I no gait twainy fox on er roun, whar drag ze skeen?" And you can't convince him that the roaming foxes had been lulled into a false security because the scent of their dead brother's pelt was stronger yet than Joe's peculiar odor.

Here is a mixture that has been lauded as a disguise of the disquieting scent of blood or human hands:

Copaiba	2 ounces
Oil of geranium.....	30 minims.
Olive oil.....	3 ounces.

A great favorite in some localities is oil of rhodium. *Asafetida* is by many upheld as the fish and game attracter par excellence.

Regents' Counts and a 1904 Matriculate.—F. T. D., New York, writes: "Would a student who matriculated in a college of pharmacy in New York State in 1904 before regents' counts were required have to have the necessary counts now in order to complete his course and try the New York State board? The student completed his junior year in college in 1904."

This query was referred to the State board, and Secretary Bradt's reply follows:

The former board accepted for examinations candidates matriculating in 1904 prior to the enactment of the prerequisite law, and whose senior year was completed subsequent to 1905, at which time the prerequisite law became operative, providing the candidate was a graduate of a New York State college, and presented his diploma as evidence of such, but only providing his name was on the list of matriculates furnished the education department as required at that time.

Rule 27 of the present board reads as follows: "The rules adopted by the regents and the board for the inspection and registration of schools of pharmacy under the amended law of 1905 remain in force unless specifically repealed by article XI of the public health law or by these rules."

As the rule of the former board has not been repealed by article XI of the public health law or by any other rule of this board, the above rule is still in force.

Therefore, if the particular student above mentioned was not on the list with others transmitted to the department at that time, kindly advise us of his name and the name of the college, when the matter will be taken up with the department direct.

Making Tablet Triturates.—"Ego," New York, writes:

I would like to hear from your subscribers something relating to *tablet triturate* making. I am certainly long enough in the business to know how, but I don't hesitate to say that a good tablet is a stunner for me. I have tried all I could think of but either my product is too soft or it is hard and shrinks; at any rate, it never keeps like the tablets made by the manufacturer. Somehow I don't seem to get at the right proportions. Maybe some brother pharmacist can help me out on that score. Reciprocation and appreciation assured.

The columns of the CIRCULAR are open to any brother who thinks he can be of assistance to the writer of the above appeal. As he does not ask us for our help we shall wait to see what others do before volunteering it.

Oiling Silk and Muslin.—J. G., Pennsylvania.—If you will send us your name we shall see what we can do for you. Your attention is called to the standing notice at the head of this department to the effect that we do not answer anonymous queries.

Legal Aspect of the Sale of Ergot.—"Salol," New York.—So far as we are aware, the only law in this State in which ergot is mentioned by name, is the pharmacy act, which places it in "schedule B," along with oil of tansy, oil of savin, and cotton root, and a number of such poisons as aconite, belladonna, etc., and the preparations of any of them, and these the druggist is required to label "poison," and before delivering them to the purchaser, he is to satisfy himself that the purchaser is aware of their poisonous character and wants them for a legitimate purpose.

However, the Penal Code, section 318, provides that—

A person who sells, lends, gives away, or in any manner exhibits or offers to sell, lend or give away, or has in his possession with intent to sell, lend or give away, or advertises, or offers for sale, loan or distribution, any instrument or article, or any recipe, drug or medicine for the prevention of conception, or for causing unlawful abortion, or purporting to be for the prevention of conception, or for causing unlawful abortion, or advertises, or holds out representations that it can be so used or applied, or any such description as will be calculated to lead another to so use or apply any such article, recipe, drug, medicine or instrument, or who writes or prints or causes to be written or printed, a card, circular, pamphlet, advertisement or notice of any kind, or gives information orally, stating when, where, how, of whom, or by what means such an instrument, article, recipe, drug or medicine can be purchased or obtained, or who manufactures any such instrument, article, recipe, drug or medicine, is guilty of a misdemeanor, and shall be liable to the same penalties as provided in section 317 of this Code.

In the consolidated laws of 1909 are also certain sections which refer to abortion and fix severe punishment for supplying the means to bring it about.

Foaming Hair Tonic.—G. R. H., New York.—It is easy to make the foam; the hard part is to find the hair tonic. We do not know of one which we can confidently and conscientiously recommend as harmless and effective, although water which has stood in contact with washed sulphur we believe to be the former, and we have heard on what we regard as credible authority, that it is the latter—at least in some cases. Whether such a water would be rendered less effective by the addition of some saponaceous material to make a foam we are unable to say.

Tincture of green soap, diluted with (say an equal volume of) water makes a good foaming hair wash, and the same may be said of some of the many shampoos for which we have recently given formulas. (See the CIRCULAR for last month, pages 631, 635 and 643.)

Emmenagogue Pill.—F. W. W., Missouri.—See the answer to M. D. C., Hawaii, under the heading "The Best Nostrums for Certain Troubles," on page 27.

Bust Developers.—J. C. B., New York.—We do not think well of this class of preparations, for not only do we regard them as "fakes" of the first water, but believe such effects as they do have, if any, are apt to be deleterious. Pharmacists had better leave such matters to physicians on the one hand and to fakers on the other; pharmacists are not physicians, and when they attempt to be, without going through the regular routine, they become fakers.

Galega and calcium lactophosphate are the princi-

pal ingredients of an advertised "bust developer" in tablet form, and that such combination will not do what is claimed for the nostrum, any therapist can tell. Massage of the breasts should be discounted on moral grounds.

Appeals to Readers.—Information is sought concerning the articles listed below. We ask for such help as our readers can give:

Stomach Rite.—"Simplex," New Jersey.

Albucol; where may it be obtained—E. M. C., Missouri.

Orange Manna.—C. W., Colorado.

Alternating Current Rectifier, and plates to be used in connection with the same, to change an alternating current of electricity to a direct current.—M. S., Illinois.

For answers to appeals published in last month's CIRCULAR we are indebted to H. Maier, New York; Carl H. Averitt, Indiana; and Herbert P. Harrison, Rhode Island, to each of whom we tender our thanks. The information they supplied either is printed in this issue or has been communicated to the querists, respectively, direct.

Some New British Pharmaceuticals.

The appended formulas are selected from a large number printed in the *Pharmaceutical Journal* as suggestions for the next issue of the British Pharmaceutical Codex:

BORIC HONEY.

Boroglycerin	10 grammes.
Glycerin	10 grammes.
Clarified honey.....	80 grammes.

COMPOUND MENTHOL SNUFF.

Menthol	7.5 grammes.
Ammonium chloride.....	25.0 grammes.
Boric acid.....	15.0 grammes.
Lycopodium	52.5 grammes.

Reduce each ingredient separately to a fine powder; mix the powders and pass through bolting cloth.

IMPERIAL LEMON DRAUGHT.

Potassium bitartrate.....	5.00 grammes.
Citric acid.....	0.80 gramme.
Sugar	50.00 grammes.
Oil of lemon.....	0.25 c.c. (mil).
Tincture of lemon.....	5.00 c.c. (mils).
Distilled water....to make	1,000.00 c.c. (mils).

SIMPLE INHALANT.

Oil of eucalyptus.....	10 c.c. (mils).
Oil of pine.....	5 c.c. (mils).
Oil of cassia.....	5 c.c. (mils).
Menthol	5 grammes.
Thymol	1 gramme.
Camphor	2 grammes.
Tincture of benzoin.to make	100.00 c.c. (mils).

Mix and make a solution.

COMPOUND EUCALYPTOL SPRAY.

Eucalyptol	80.0 c.c. (mils).
Camphor	20.0 grammes.
Menthol	20.0 grammes.
Thymol	1.1 grammes.
Liquid petrolatum.to make	1,000.0 c.c. (mils).

Dissolve the other ingredients in the liquid petrolatum.

Nebraska Board Questions.

Herewith are reprinted the questions used by the Nebraska Board of Pharmacy at an examination held November 9th, 1910. Other sets of questions asked by this board appear in the issues of the CIRCULAR for December, 1908, page 621; May, 1907, page 370; November, 1906, page 408; August, 1904, page 185; and September, 1897, page 264.

In reprinting board questions we endeavor to follow closely the nomenclature, spelling, punctuation and capitalization of the originals, our object being to give to our readers, just as nearly as practicable, the questions as they were presented.

Pharmacy.

Herbert Lock, Examiner.

1. What are the units of weights and measures in the system on which the Pharmacopœia is based?
2. How many grains of cocaine hydrochloride must be used to make 250 c. c. of a 4 per cent. solution of this salt in water?
3. How many fluid ounces of distilled water must be added to 50 ounces of 95 per cent. alcohol to make 11½ pints of 25 per cent. alcohol?
4. What are the best solvents for the following drugs: Tannin, Phenol, Menthol, Boracic Acid, Corrosive Sublimate, Gum Arabic, Gutta-Percha, Pyroxylin, Gum Benzoin, Alkaloidal Salts?
5. What processes are used in the extraction of drugs by solvents? What are the conditions of perfect percolation?
6. Give full directions for making an official tincture by percolation, one by maceration, and one by simple solution.
7. How may heat be regulated and applied in its various uses in Pharmacy? Give several examples. Name three sources of heat.
8. Give definitions for the following: Desiccation, Sterilization, Distillation, Sublimation, Comminution, Expression, Solution, Filtration, Dialysis, Precipitation.
9. Write the following substances in the order in which they rank in weight of equal volumes of each at the same temperature and pressure: Glycerine, alcohol, water, ether, chloroform, sulphuric acid.
10. What is Manufacturing Pharmacy? Dispensing Pharmacy? Commercial Pharmacy? Pharmaceutical Jurisprudence?

[Chemistry?]

D. J. Killen, Examiner.

1. State the name and the general chemical properties of the Halogene group.
2. State the chlorides of mercury: (a) Their names, (b) chemical formulas, (c) composition, (d) solubility, (e) color and other properties.
3. State of silver nitrate its composition, properties and names by which it is known.
4. Give tests, antidotes for HNO₃.
5. (a) What is the difference between an oil and a fat? (b) Is carbolic acid an acid? If not what is it?
6. (a) Is glycerine an oil or fat? If neither what is it? (b) Name the fats in nature.
7. (a) Give the source, formula and characters of carbonate of potassium. (b) What are the symbols of eight elements?
8. Give chemical formula of cream of Tartar, Rochelle salts.
How would you make seidlitz powders?
How is potassium chlorate manufactured?
9. What occurs when a steel spatula is dipped into strong solution of copper sulphate?
What effect does ammonia water have upon an aqueous solution of Ferric Citrate?
10. Complete the following equations

$$\text{Mg O} + \text{H}_2 \text{SO}_4 =$$

$$\text{K}_2 \text{CO}_3 + \text{H}_2 \text{SO}_4 =$$

$$\text{CaCO}_3 + 2 \text{HCl} =$$

$$\text{Na}_2 \text{S}_2 \text{O}_8 + 2 \text{HCl} =$$

$$\text{K}_2 \text{CO}_3 + 2 \text{HCl} + \text{H}_2 \text{O} =$$

Materia Medica.

Frank Koss, Examiner.

1. Identify specimens 1 to 8.
2. Give the Pharmacopœial name, part used, active constituents and average doses of the U. S. P. preparations of the following drugs: Cascara Sagrada, Peppermint, Coca.
3. (a) What are Fungi? (b) Name an important drug from this source, and give its therapeutic uses.
4. (a) Where are protein compounds found? (b) What are their constituents? (c) What are their physical properties?
5. What standard is established by the U. S. P. for Pepsinum, Pancreatinum?
6. (a) Name five official vegetable acids? (b) Give source and state dose of each.
7. Name two each crude official drugs having the following therapeutic properties: Astringent, Anthelmintic, Diuretic, Hydragogue, Mydriatic, Taenicide.
8. State source of following articles and how obtained: Creosote, Elaterium, Fel Bovis.
9. Name five organic Pharmacopœial preparations that are purgatives. Give average dose.
10. Define Materia Medica, rhizome, alkaloid, gum resin.

Toxicology.

A. V. Pease, Examiner.

1. (a) Give accurate definition of the word poison. (b) Name five poisons that are rapidly fatal. (c) Name five poisons that are slow and cumulative in effect.
2. With reference to the study of toxicology define: (a) Antidote, (b) Antagonist. Give an example of each.
3. In case of following ante-mortem symptoms, what poison would you suspect? (a) Moist skin, mental dullness, then coma. (b) Delirium, dilated pupil, skin dry and hot.
4. Name three inorganic poisons, giving fatal dose of each and antidote. Write the antidote after the name of the poison.
5. (a) Name four kinds of poison for which oils and fats that are useful chemical antidotes. (b) Name four cases in which they are contraindicated.
6. (a) Give adult toxic dose of Morphine Sulphate. (b) Give inorganic chemical antidote for same. (c) Give vegetable physiological antidote for same.
7. What is a fatal dose of liquor potassii arsenitis? Give antidotal treatment.
8. Name five articles common in the household that may, in emergency, be used as antidotes for poison. Give poisons for which they may be used, and method of treatment.
9. Give safe adult dose of acetanilid. Give probable smallest fatal dose. Give antagonistic treatment.
10. (a) Give physiological reason for use of mucilaginous drinks in case of poisoning. (b) Name five poisons for which tannin is a chemical antidote.

Extract of Cinchona for Wine.

Dufau (*Bull. des Sci. Pharmacol* through *Pharm. Journ.*) offers the following formula for a liquid extract of red cinchona suitable for admixture with wine:

Red cinchona, in number 30
 powder 1,000 grammes.
 Diluted hydrochloric acid..... 80 grammes.
 Alcohol, 60 per cent. 6,000 grammes.

Moisten the powdered drug uniformly with 500 grammes of the alcohol mixed with the acid. Macerate for two hours in a closed vessel, and transfer to a percolator. Add more alcohol and macerate for twenty-four hours, then percolate, using the remainder of the alcohol. Collect and set aside the first 1,000 grammes. Continue the percolation, and, recovering the alcohol from the percolate, concentrate to 2,000 grammes; add this to the 1,000 grammes collected; allow to deposit for some days in a cool place, and filter. Each 75 grammes of this product corresponds to 25 grammes of the bark.

Some Questions in Drug Store Mathematics.

Here are a few questions which may interest the drug clerk who wants to keep his knowledge of arithmetic bright until such time as he is ready to "go before the board." This is the "easiest" lot we have printed, and even an apprentice should have no difficulty in answering them. We invite them to try:

1. A druggist bought from a traveling salesman a bill of stationery amounting to \$48.50. A rival salesman offered to duplicate the bill at a saving of \$10. What percentage of saving was represented by the \$10?
2. A druggist bought a gallon of alcohol for \$3.20. He added water to it and sold it as diluted alcohol at \$2.40 a gallon, his profit being 50 per cent. How much water did he add? [In working this example no allowance is to be made for shrinkage.]
3. What is the cost per pound of a mixture of 3 pounds of a powder costing 15 cents a pound, and 5 pounds of one costing 20 cents a pound?
4. In a 6-ounce mixture, to be taken in 1-dram doses, there is 1 ounce (apothecaries') of potassium bromide. How much of the salt is there in each dose?
5. A prescription calls for 12 pills each to contain 1/64 grain of strychnine sulphate. How much of the salt must be used in filling the prescription?
6. The quinine sulphate for how many 1-dram bottles is contained in a 5-ounce can?
7. If lead pencils cost \$3.60 a gross, how much is made on each sale of a pencil at 5 cents?
8. A certain elixir represents 1 per cent. of one of its active ingredients. How much of that ingredient must be used in making a pint of the elixir?
9. A formula calls for 24, 40 and 32 parts, respectively, of the three ingredients which are to enter into a preparation. It is desired to make 1 apothecaries' pound of the mixture. How much of each of the three ingredients must be used?
10. The dose of extract of cascara sagrada being 1½ grains, how many doses are there in 1½ drams?

Answers to November Questions.

1. 15.415.
2. 48.7 per cent.
3. 3.7+ cents.
4. 192+ per cent.
5. \$1.10 (about).
6. 8 pounds, 14 ounces, 375 grains.
7. 4 parts of 10 per cent. and 5 parts of 28 per cent.
8. 6.95 cents.
9. \$4.23 (about).
10. 1 pound, 8 ounces, 223.825 grains.

Essence of Tonka.

A so-called *artificial essence of vanilla* containing no vanilla, may be made as follows, according to the *Chemist and Druggist*:

Tonka beans.....	2½ ounces.
Prunes, bruised.....	4 ounces.
Raisins, bruised.....	2 ounces.
Black currants.....	1 ounce.
Orris root.....	1 ounce.
Peru balsam.....	6 drams.
Treacle, dark.....	10 ounces.

Bruise the tonka beans and infuse for three hours in 10 ounces of hot water. Separately macerate the prunes, raisins, black currants, and orris root (in powder) in a mixture of spirit 25 ounces, water 40 ounces; add to this the infusion of tonka, macerate fourteen days, and add the other ingredients and filter.

After all, the kind of world one carries about in one's self is the important thing; and the world outside takes all its grace, color, and value from that.—Lowell.

Correspondence.

Short, timely articles upon subjects of interest to pharmacists are solicited for this department. In order to be in time for publication in the issue of a given month, they should be in the editor's hands on the fifteenth day of the month previous. Anonymous communications will not be published; but if the author expresses a wish to have his name withheld, this wish will be scrupulously regarded and his letter considered confidential.

Once More the Prescribing Druggist.

St. Louis, November 20th, 1910.

To the Editor of THE DRUGGISTS CIRCULAR:

Having read with much interest your various editorials on the subject of counter-prescribing, the sale of opiates by druggists, etc., I believe that there are certain sides of the question which you have failed to touch. A few of them are being treated in the accompanying [reprinted] article, and I have no doubt that many of your readers would like to hear your comments on it through your editorial columns.

You say, let the physician do the prescribing and the pharmacist the compounding and dispensing. At the same time, however, you admit that it may prove a difficult matter to deprive physicians of the right to dispense, for which the majority of them, according to your own statement, are unfit for lack of proper training. On the other hand, many of the druggists whom you expect to go ahead and show a good example by strictly living up to professional ethics, would be doomed to starvation were they depending on the prescription trade of the doctors in their respective districts. They cannot figure with circumstances as they ought to be; they must, in order to make a living and to pay their bills, make the best of the prevailing situation, which with all outward semblance of prosperity is often wretched enough.

Which then is the better course for the druggist to pursue in the case of minor ailments, to administer to the patient who has not the means or can not see into the necessity of consulting a doctor, a harmless remedy of recognized merit, to afford him relief and possibly effect a cure, or to let him try the entire list of "patent" medicines until he has found the right one? The "patent" medicine trade is a perfectly legitimate one, if not from an ethical, none the less from a legal point of view; why then should the pharmacist who stands face to face with the patient be not fit to treat minor ailments, if the manufacturer of curealls is, through newspaper advertisements and by mail, permitted to treat serious ones? Is not the former in the vast majority of cases a better judge of his own competency and has he not a higher sense of responsibility than the latter?

RICHARD STIEBER.

[The enclosure with this letter was a bombastic tirade against physicians and boards of health, which, stripped of its verbosity and "sound and fury" amounts to this: We are interested in the sale of drugs whose use is hurtful to the people; boards of health are restricting such sales, and thereby cutting off a certain source of our income; therefore boards of health are bad things and their ordinances are leading us to ruin. The plea is very simple, but of course it had to be dressed in high-sounding language in order to appeal to honest druggists. That it has suc-

ceeded in pulling the wool over the eyes of some of them who have not taken the time to analyze it seems to be a fact.

Mr. Stieber puts the case much stronger in his letter when he contrasts the neighborhood apothecary honestly trying to relieve some poor customer's ills, and the large manufacturer whose only aim in offering nostrums is to put money in his purse. Doubtless the druggist frequently does the customer a kindness by selling him a simple remedy that will keep him from experimenting with nostrums, but it is so easy for him to overdo this sort of kindness that he should, while still advising the customer to let alone nostrums, urge him to consult a physician about a case in which the application of a simple remedy might, by relieving a symptom, cause him to lose valuable time in the treatment of some serious disease. It is not the province of a pharmacist to diagnose and prescribe, and not even the fact that by so doing he may prevent the customer from injuring himself by experimenting with nostrums is justification for him to engage in this practice, especially when the third and correct course for the customer to pursue is so plain to the pharmacist and could be made so plain to the customer by the pharmacist.—Editor THE DRUGGISTS CIRCULAR.]

Physicians as a Menace to the Public.

New York, December 13th, 1910.

To the Editor of THE DRUGGISTS CIRCULAR:

Referring to the article in your October issue under the heading "Druggists and the Sale of Opiates," I wish to say that the author is lacking a good deal of knowledge in pharmacy and medicine, hence is in the wrong boat. To me he appears no more than a medical booster. Just listen to the piece of hot air: "Does the personal freedom guarantee to each citizen of this country the right to trifle with his life or the life of those dependent on him?"* No! thousand times, no! Not unless you are licensed to do so. Take for instance our well-trained medical man who has the right to kill; but, of course, he must diagnose the case first, and if he has made an error who dares to interfere with him? "According to the best of his ability"; that is all he is required to put in the death certificate. If you have a headache with no typhoid, you may get it if you consult him, because he needs the money. It reminds me of a case: My brother-in-law took sick with severe headache; one of the little angels was called in, and according to his diagnosis the man had typhoid. He put him on a diet of 15 grains of acetphenetidin to be repeated every four hours, and after the patient had taken 2 drams of it you mean to say he was not sick? We had to get another man who drives a big auto and knows how to look wise, and for a \$2 note told us that the patient was suffering from a severe case of intermittent fever. The third doctor, who happened to be a friend of mine, agreed with me that a good dose of castor oil would save the man's life, and it did, because he went to work the next day.

Such great diagnoses occur every day by the hundreds. I know, you know and the medical trust knows that medicine is not a true science; that it is nothing

*Of course no such nonsensical expression as this appears in the article in question, as this correspondent must have known or could easily have ascertained.—Editor THE DRUGGISTS CIRCULAR.

more than guess work, and the less you see the doctor the better you are off, because the drugs he prescribes for you are also guessed at, and if it was not for the layman-druggist, who takes care of the doctors' mistakes in their prescriptions, the undertaker would be kept busy day and night. Every druggist is well acquainted with great knowledge the honorable physicians possess in chemistry, pharmacy, materia medica. We should be thankful for the detail man, he keeps the doctor posted on all the humbugs. And why should the doctor study the above mentioned subjects? He is not required to pass any examinations on these subjects. Just think of it: the druggist who has to spend two years in school, four years in a drug store and pass a rigid State board examination is not allowed to sell 5 cents worth of paregoric, brown mixture, Stokes' expectorant, etc., but the medical man who has a faint knowledge of drugs and chemicals (you can tell that from their prescription writing), he is given the full right to handle all the dangerous drugs! I do not blame the medical trust for protecting themselves from intruders; they know well that their only salvation is morphine and cocaine. Take that away from them and they are lost. The first thing the medical wonder does when he comes out of school is to let his beard grow so he can carry a lot of germs from one patient to the other; then he equips himself with a hypodermic syringe and some tablets, and the first victim he gets with a pain or ache, in goes the hypo, the patient is relieved, and the doctor is a wonder. Who created so many morphine and cocaine fiends if not the doctor? Who has driven hundreds of people to the early grave, if not the doctor? So you see, my friend, opiates are more dangerous in the hands of the physician than in the hands of the pharmacist. All the laws which the medical board is passing are not for the protection of the public health, they are only to protect their own interests. They want the people to run to the doctor with every little pain or ache so he can get a dollar for the prescription, and some of the doctors supply their own drugs so that makes the poor patient lose another dollar, and as far as the habitual "dopes" are concerned, they will cheerfully pay the doctor a dollar for a piece of paper so they can get the dope from the druggist, and a good many doctors are supplying it themselves.

I wonder what will the future pharmacist be allowed to sell? Well I do not think that the board of health will object if he sells postage stamps.

A. L. MERIN.

[Physicians can get along fairly well without the aid of pharmacists, and from all accounts some of them are doing so. If pharmacists think they can get along better without the physicians' trade and co-operation they should do what our friend, the writer of the above letter, is doing—abuse the doctors. If, on the other hand, pharmacists believe it would be to their advantage to keep on good terms with physicians, there is a way for them to do that, too, and a very simple way—prove worthy of the physicians' friendship and confidence. Believing in the second of these alternatives we gave Mr. Merin an opportunity to withdraw his letter, but he insisted upon having it published. We believe it does not express the sentiments of any considerable portion of the pharmacists of this country.—Editor THE DRUGGISTS CIRCULAR.]

Dispensing by Physicians.

Brooklyn, N. Y., December 5th, 1910.

To the Editor of THE DRUGGISTS CIRCULAR:

Allow me to comment on your editorial in the CIRCULAR of November about physicians dispensing. Your comment is not convincing, and I am now opposed to physicians dispensing as much as before reading your editorial. I do not wish to imply that physicians have no right to choose the drugs for their patients: the opposite is the case. They shall choose it, and with the utmost care, only instead of giving the drug to the patient themselves they shall give him a prescription, and he (the patient) shall have it made in the nearest pharmacy.

Medicine in Germany, France or Russia is on a much higher standard than it is in this country, and there physicians do not dispense. You may claim that in those countries druggists do not prescribe. To which I answer, two wrongs do not make one right. In striving to raise pharmacy to a higher standard you also must raise medicine. Both professions go hand in hand, and you will not do away with the other.

As I said in my former letter, we must see to have a law passed preventing physicians dispensing. We have a law preventing druggists prescribing. Why should there be legislation only for us pharmacists? What many physicians told me that study in the medical schools on the subject of pharmacy takes only a few months. I would like to know how can they become competent in so little a time when schools of pharmacy turn out a lot of incompetents after two years' study.

H. RUBIN.

[In a recent issue of the *New York Times* appeared the following editorial note: "Three thousand barbers have combined to demand the suppression of the safety razor by legislation. Do not laugh at them. They are following a long-established American precedent. They, too, have acquired the appetite for legislation. The safety razor hurts their trade, and the government must intervene. . . ."—Editor [THE DRUGGISTS CIRCULAR.]

Happiness in the Drug Clerk's Life.

Portsmouth, Va., November 22d, 1910.

To the Editor of THE DRUGGISTS CIRCULAR:

To my fellow drug clerks I would say: Cheer up, our lot is not as deplorable as has been pictured by some of our more pessimistic brothers. There is plenty of fun to be had as we go along if we only look for it. Take a day off occasionally and go to the country. No reasonable employer will refuse to give you the time. During the past week I asked permission of my employer to go to the country for a day, which was willingly granted. So calling up a friend, we got together, hired a horse and buggy, drove ten miles in the crisp morning air, left our horse at one of the negro cabins, which are plentiful in Virginia, and had a most delightful day's sport on the banks of the Dismal Swamp Canal. We came back elated over our day's luck. I had a refreshing night's rest, and the following morning went about my duties feeling a hundred per cent. better after having spent a day in the wild woods and glorious sunshine near to nature's heart.

Try it, boys, it will do you worlds of good. If you do your duty by your employer, he'll not refuse your request. The result will be that you will go about your duties with a lighter step and a brighter smile. After having spent a day in the country the many petty things that before seemed annoyances to you will have changed their aspect, and you'll see in a different light. These so-called annoyances that come before all of us in our daily walk of life are magnified in our sight on account of continual contact with them. Get "off" for a day, break the monotony, and they will not seem so large. No man will or can be satisfied with an unceasing sameness, it matters not what his or her calling may be. Close your ears to the wails of the "chronic knockers"; you'll find plenty of them in every walk of life.

In conclusion I wish to say for the benefit of the dissatisfied drug clerk, that there are many other callings besides the drug business, and you'll never make a success in any business if you are dissatisfied, so get out. Nothing compels you to stay in the drug business. Find a calling that is best adapted to your talents and tastes, and stick to it. In my opinion the good features of this, our chosen profession, will far outweigh the bad ones; there are lots of bright spots along our pathway, but lots of us overlook them on account of being so engrossed in looking for the dark ones. Smile more and your sales will increase. All "grouchy" men should be colonized and put on an island to themselves. I'll never forget the good logic that my friend and teacher, Dr. Diekman, used to drill into us in his lectures. He said that the man worth while was the one who could smile when everything goes dead wrong.

For fear of the editor's "blue pencil" I'll say adios, with hopes that some of you will profit by the advice of your humble brother.

P. C. WRAY.

Mixtures of Camphor and Phenol.

It is well known that when a small amount of camphor is added to phenol, the mixture assumes the liquid state, and remains in that condition even when cooled to temperatures considerably below the freezing point of phenol. By taking the freezing-point curve for mixtures of the two bodies Wood and Scott (*Journ. Chem. Soc.*) have been able to confirm the statement of Léger as to the existence of a monocamphoride of phenol. The two substances are united in equimolecular proportions, and the freezing-point of the compound is about 18.6°. When the two components are not present in equimolecular proportions, the freezing point of the mixture is lower than that of the pure compound, and falls according as to whether it is phenol or camphor which is in excess. No indication was obtained by the authors as to the existence of a compound formed by the union of two molecules of phenol with one of camphor, as was stated to be the case by Léger.

A New Indicator.

Sacher (*Chem. Zeit.*) recommends as an indicator a tincture obtained by macerating in the cold the pericarp of red radishes with 96 per cent. alcohol for a few hours. This tincture, which is colored red by acids and green by alkalies, is said to be more sensitive than methyl-orange or phenolphthalein.

Notices of Books Received.

DIE ÄTHERISCHEN ÖLE, von E. Gildemeister und Fr. Hoffmann. Zweite Auflage, von E. Gildemeister. Erster Band mit zwei Karten und zahlreichen Abbildungen. Octavo; three-quarter leather; viii + 697 pages. Miltitz bei Leipzig: Schimmel & Co. 1910.

In few if any other of the national divisions of chemical industry has the past decade seen as great advances as have been made in the study of the essential oils. The scientific consideration of these long known substances is wholly a matter of but a few score years, and only in the years after the issue of the first edition of Gildemeister and Hoffmann may it be said to have reached a condition approaching maturity. Rapid as was the progress in the chemistry of the volatile oils and the natural aromatic principles in the latter years of the nineteenth century it has been exceeded by the strides in the province of real knowledge that have marked the first ten years of the present century. Hence it is that this timely edition of a work that was a pioneer in an interesting field and has become a recognized authority, will doubtlessly be well received by those pharmacists who are familiar with the German language, and many others would be pleased were it available in English.

This second edition differs somewhat from the first. It is divided into four parts. The first is similar to the corresponding one in the preceding edition, being devoted to a historical recountal of the trade in spices, aromatics, and volatile oils in all ages and countries. Part II treats of the production of the odorous principles of plants by means of extraction with volatile substances, enfleurage or extraction with non-volatile vehicles, and by maceration.

Part III occupies almost 300 pages devoted to the chief constituents of the volatile oils, and the natural and artificial aromatic bodies. It is, in other words, the general chemistry proper of the aromatic principles. Part IV contains descriptions of the physical and chemical methods of examining and identifying the ethereal oils. In this part are two very useful tables: One for the computing of the percentages of the aromatic alcohols from the ester number; the other for the estimation of the ester number as well as the percentage of alcohols and esters directly by the use of half-normal potassium hydroxide. The chapter on the distillation of ethereal oils has been omitted, the reader being referred to von Rechenberg's *Theorie der Gewinnung und Trennung der ätherischen Öle durch Destillation*, which is noticed below. The second volume to be issued later will treat descriptively of the individual volatile oils.

The collaborators of Dr. Gildemeister, who aided particularly in the preparations of parts III and IV, were Drs. Wiegand, Reclaire, Köhler, Müller, and Rochussen.

THEORIE DER GEWINNUNG UND TRENNUNG DER ÄTHERISCHEN ÖLE DURCH DESTILLATION (Grundzüge einer allgemeinen Destillationslehre). von C. von Rechenberg. Mit zahlreichen Abbildungen und Tabellen. Octavo; three-quarter leather; xii + 259 to 751 pages. Miltitz: Schimmel & Co. 1910.

This is an especially learned treatise on the ramifications of the distillation of volatile oils which lead into the mazes of organic chemistry. A few chapter heads will serve to indicate the nature of the work:

Distillation from Combinations of Different Immiscible Fluids; The Physico-Chemical Factors of Plant-Distillation; The Influence of Molecular Association and Disassociation on Evaporation; Distillation from Mixtures of Different Slightly Miscible Fluids; Distillation in the Presence of Added Compounds. In most of these chapters there are extended tables.

The publishers state that it is not their intention to have this work translated into English "as its scope appeals exclusively to scientific circles, which would not bespeak a more general distribution."

ALCOHOL A DANGEROUS AND UNNECESSARY MEDICINE; How and Why; What Medical Writers Say. By Mrs. Martha M. Allen. Second edition. Duodecimo; cloth; vii + 435 + vii pages. \$1.25. Marcellus, N. Y.: Department of Medical Temperance of the National Woman's Christian Temperance Union. 1910.

There can be but little doubt that the use of alcohol in a medicine rather than as a medicine is extensive and productive of much harm. The nostrum is an especial offender in this connection, and it often contains alcohol not for its therapeutic properties, but for the purpose of popularizing the preparation. However, if what we read be true, the medical profession is not free from over-reliance on alcoholic medication, and oftentimes not governed by the dictum of Dr. Solis-Cohen: "It [alcohol] should be prescribed . . . in the same manner as any other powerful and potentially harmful drug."

It is therefore reasonable to believe that there is a need for Mrs. Allen's compilation of medical evidence against the therapeutic use of alcohol. It may well be read by the benighted devotees of the "disguised cocktail"; and its facts may be a welcome revelation to the medical man who regards alcohol as a stimulant because he has never been taught that it is a depressant.

Pharmacists as a class usually become early acquainted with the "medicinal" tipples because of the regularity with which they are used by portions of the laity; but the man behind the drug-store counter will find in this book much to convince him that there is a danger in the popular potion by reason of the false security the alcohol engenders in the sufferer from some insidious disease. Not alcohol alone but also caffeine, opiates, cocaine, coal-tar antipyretics, and all the seductive armamentarium of the nostrum maker are arraigned by Mrs. Allen and their unrestricted use combatted with weighty argument.

AN INTRODUCTION TO THE CHEMISTRY OF THE COLLOIDS; a Compendium of Colloidal Chemistry for Students, Teachers, and Works-Managers. By Victor Pöschl, Ph. D. Translated from the second enlarged, German edition by H. H. Hodgson, M. A., B.Sc., Ph. D. Duodecimo (small); cloth; 114 pages. London, Charles Griffin & Co., Limited. Philadelphia: J. B. Lippincott Company. 1910.

Colloids and colloidal conditions form an interesting and little understood division of chemistry. They are important in many branches of every-day industry so that their study is profitable to many. The author of the book under consideration declares his purpose to be the presentation of the colloid problem so concisely arranged as to be at the command of those who are confronted by its various phases.

There is much in this book of interest to pharma-

cists, and more than a little of daily use in their vocation. Every little while some new colloidal compound of some metal is brought out as a therapeutic agent and it behooves the pharmacist who is called upon to compound medicines containing these substances to know something about the nature of colloids and colloidal solutions. These are the things he may learn from this book.

A STUDY OF MELTING-POINT DETERMINATIONS, with Special Reference to the Melting-Point Requirements of the United States Pharmacopœia. By George A. Menge. Bulletin No. 70, Hygienic Laboratory, Public Health and Marine-Hospital Service of the United States. Octavo; paper; 101 pages. Washington: Government Printing Office, 1910.

The determination of melting-points is one of the most exacting tasks of the chemist and doubtless all those engaged in pharmacal work will appreciate this bulletin. It should prove particularly of service to the revisers of the Pharmacopœia.

PROCEEDINGS OF THE IOWA PHARMACEUTICAL ASSOCIATION at the Thirty-first Annual Meeting Held at Des Moines, July 6th to 8th, 1910.

ABSTRACT OF THE PROCEEDINGS OF THE UNITED STATES PHARMACOPŒIAL CONVENTION, 1910.

THE CHEMISTS' AND DRUGGISTS' DIARY, 1911. London: *The Chemist and Druggist*.

Inexplicit Formulas.

Assumption on the part of those who know, that those to whom they would impart information also know much of which they are really in ignorance, frequently leads to the embarrassment and disappointment of the latter. Frequently formulas as given in some of the papers are marked by their inexplicitness, but not often are directions seen which are as vague as those told of by a writer in the *Saturday Evening Post*, who says:

"Dear mamma," wrote a bride transplanted from a Southern family to the North, "please have Mammy Johanna send me her recipe for hot cakes."

Mammy Johanna had presided in the kitchen for thirty years. With much labor she wrote the recipe.

This was it: "Take as much flour as you need, 'cordin' to how many folks they is to eat; put in some salt—Miss Mary knows how much; put in all the rest of the ingredients and be sure to have your griddle hot."

To Blacken Aluminum.

Aluminum articles may be blackened by immersing them for twenty-four hours in a liquid made as follows:

Zinc chloride..... 16 grammes.
Copper sulphate..... 1 gramme.
Hydrochloric acid..... enough.
Hot water..... 60 c.c. (mils).

Dissolve the zinc chloride in about 40 c.c. (mils) of hot water, and the copper sulphate in the rest of the water. Mix the solutions and add hydrochloric acid drop by drop until the liquid becomes clear.

After the article has been removed from the bath and dried at a gentle heat it should be varnished.

Show Card Ink.

The *New Idea* vouches for the formulas below, saying: If you want some good show card inks, try these. Every druggist appreciates the value of show cards, but from the number of inquiries received it is evident that many are having trouble in producing suitable inks. These formulas have been supplied on a great many requests and are proving so satisfactory that we are offering them to all our readers. If you have anything better to give let us have it.

BLACK.

I.

Asphaltum 3 ounces.
Venice turpentine..... 1 ounce.
Lamp black..... ½ ounce.
Oil of turpentine..... 8 ounces.

II.

Nigrosin 1 part.
Water 14 parts.
Glycerin 4 parts.

RED.

I.

Rosanlin acetate..... 2 parts.
Alcohol 1 part.
Water 10 parts.

II.

Bordeaux red..... 3 parts.
Alcohol 2 parts.
Water 20 parts.
Glycerin 1 part.

VIOLET AND BLUE.

Anilin violet or blue (2 RB)..... 1 ounce.
Hot water..... 7 ounces.
Alcohol 4 ounces.
Glycerin 2 drams.
Ether 5 drops.
Phenol 1 drop.

Dissolve the anilin in the hot water, allow this to cool, then add the other things.

Other formulas for this class of preparations appear in the CIRCULAR for June, page 280.

Liquor Aluminii Acetici.

Feist and Hochstaetter (*Arch. Pharm.*) recommend the following process for making liquor aluminii acetici: 26 grammes of barium carbonate are intimately mixed with 20 grammes of water and the mixture added gradually with constant stirring to a solution of 30 grammes of aluminum sulphate in 80 grammes of water. After the addition of 36 grammes of diluted acetic acid the mixture is allowed to stand for eight days in a cool place with occasional stirring. The clear liquid is then decanted and diluted with water until the proper specific gravity is obtained. The liquor, thus prepared, is very stable, contains only a small amount of aluminum sulphate, and otherwise is free from impurities.

Fattening on an Anti-Fat.

Fucus vesiculosus, or bladder wrack, an extract of which is such a popular ingredient in proprietary anti-fat medicines, says the *Prescriber*, is largely used in Ireland to fatten pigs.

DRUG STORE ADVERTISING

By M. P. GOULD, of New York

In this department some of the fundamentals of successful drug store advertising will be expounded each month. The aim is to correct errors of advertising and establish the most profitable and advisable methods of building up retail drug trade by means of the powerful influence of advertising.

Inaccuracy in Advertising.

One of the most amazing things in modern business life is the vast amount of superficiality and inaccuracy. In some lines there is a great tendency toward accuracy. For example, in big business firms there is accuracy in stock invoicing, there is accuracy in handling money, there is accuracy in purchasing, in selling records, in making estimates, in the stopping of leaks and losses through carelessness.

On the other hand, there is also a very strong tendency in the opposite direction. For example, in the statements made by newspapers when they write-up the so-called news of the day. In many ways they are extremely irresponsible. There is inaccuracy in political statements, and political speakers will make statements which they must know are inaccurate—if they know anything. Some salesmen of the old school make statements which cannot be justified on any ground. Another form of inaccuracy which is very costly is the lack of accurate information on any topic. There is an old adage which says, "Ignorance of the law excuses no man."

Now, apply this adage to advertising. Some firms that advertise in magazines do not make any effort to know whether the statements made by the magazines relative to the extent of their circulation is accurate or not. There is a popular magazine which at one time had a circulation of 900,000 that lasted only a short time. Consequently when the circulation dropped back to 650,000 or 700,000 per month the publisher fixed the rate at \$500 per page. There is a rule in magazine advertising that the rate should be about \$1 per page per thousand. If the magazine had 600,000, the rate might be \$600. This publisher, however, figured that, inasmuch as his great circulation had come quickly, it might also be lost quickly; so he fixed a rate of \$500 per page. The circulation actually went down to nearly 400,000, but the rate stayed at \$500 per page, because very few advertisers knew that the circulation was so low. However, so many advertising men are learning in these recent times to be accurate and to know the facts, that this publisher had to spend large sums of money in order to get his circulation back to a figure where it would justify the price of \$500 per page.

In towns all over this country there is a vast amount of loose talk about the circulation of papers. In a city of New York State there are two evening papers, each of which was guaranteeing to its advertisers that it had 5,000 more circulation than any other evening paper. Of course, one or the other must be wrong. Finally, one of the papers made a proposition publicly that five judges should be selected from the five biggest advertisers in the papers of

that town; these five judges should make a careful and thorough examination of the circulation of both papers; and whichever paper had the smaller circulation should pay the other paper one dollar per copy for its excess circulation. When the examination was made one paper had to pay the other \$4,300, because the judges proved that it had 4,300 circulation less than the other paper. Therefore, in that town, every advertiser knew what the circulation of each of those papers was. Before that they had been paying too high a price for their advertising in one of those papers.

It is amazing the notions which even well informed people have regarding newspapers. For example, one of the oldest and most prominent papers in this city is supposed by many people to have over 200,000 circulation. Actually it has 57,000 or 60,000. Another paper which for years was supposed to have had 45,000 or 50,000 circulation has been proven to have only 17,000.

One of the most successful general advertisers has worked out a theory of his own. His theory is that he should pay each publication a certain rate per line per thousand. Therefore, he does not pay a fixed rate. If a magazine, for example, has 50,000 more circulation than the 200,000 it thought it had, he pays a rate proportionately higher than the published rate; but, if the circulation falls down to say 175,000, then he pays a proportionately lower rate than that published. He works this policy wherever he can, and feels that he is getting a rate which is always fair and just to both him and the publisher.

A great many druggists advertise in newspapers without really knowing how much circulation their mediums have. This was illustrated some time ago when an old friend from New England came to see me. He said that he was advertising a specialty in the weekly papers in small country towns in his State. There is a very large and successful weekly paper, published in his own city, which is sent quite thoroughly throughout the State. I asked him why he did not use this paper. He replied with this startling statement: "Well, that paper is not read very much throughout the State. It goes mostly to people who have left the State and subscribe for it merely to keep informed on what is going on in their old homestead." I replied that that could not possibly be so, because one of my other friends had told me that it was one of the best advertising mediums in New England. I immediately went to my files and found that this paper had a total circulation of 28,000. Of this total only 1,400 went out of the State. My caller was so surprised by these facts that he could hardly believe them. He said: "Why, I have known the proprie-

The Factor

EXPERIENCE—that is what counts.

That is the chief factor in the perfecting of a prescription. So far as the law is concerned, every druggist is on an equal footing, but it takes years of experience for a druggist to perfect his first knowledge. Your prescriptions filled by us will be filled right, because our experience gives us the right knowledge of prescription filling and aids us in the proper selection of the right kind of drugs.

: : : : : :

(Name and address)

tor and the advertising manager all of my life and they surely would have told me about that if it were true." I then asked him if he ever asked either of these men for a circulation statement. He replied that he had not. "Then," said I, "how did you get into your mind that most of the circulation went outside of the State?" "Why, that is the general opinion," was his reply. Thousands of druggists are paying out their good money for advertising on no more sound reasoning than merely general opinion.

The first thing that a retailer ought to do when an advertising solicitor comes to him and solicits his patronage is to get the following facts in writing, and an affidavit as to their accuracy: First, what the total circulation is, including street sales (if there are any) home carrier circulation, either news-stand or mail, free exchanges and office use. Second, what the net paid circulation amounts to, deducting all returns, all free exchanges, all damaged copies, all copies for office use, all copies furnished to advertisers. Under this head there must be nothing except the net paid circulation. Third, the extent of the net paid circulation for the town itself, cutting out all outside circulation. For example, there is a very successful paper in New England which has a total circulation of 16,000, but only 9,000 of that total is in its home town, the other copies go far and wide throughout that section of New England. There is another paper in New England which has a total circulation of 24,000, but only 16,000 of this is in the town itself, the rest of the copies go all up and down the valley to people who rarely ever come into that town to trade. There is a paper in this city which boasts a total circulation of 815,000 every evening. Only 450,000 of this is in the city—all the rest is outside. Part of the latter is in New Jersey, Connecticut and New York State, contiguous to the city, so that probably 650,000 copies really reach people who do more or less trading in New York, but the other 165,000 go to remote parts where they do the merchants in the city very little, if any, good. Fourth, what the net paid circulation in the advertiser's district is.

With the above facts in hand—and one must be sure that they are guaranteed facts, the druggist can buy his advertising space, knowing what he is getting.

General advertisers buy space in this way. They require a publisher to tell them what the total circulation is in their town; what the total circulation is in the surrounding towns; how much advertising is carried and how much advertising of this particular manufacturer's class is carried; and how many advertisers use that paper alone in the town. When the advertiser has learned these facts he, in many cases, submits them to his local agent or to some good local dealer for verification. He also refers to his books to learn what the American Advertisers' Association has said about this publisher's circulation; also to the American Newspaper Directory, as to what circulation it credits to this publisher. When the general advertiser has arrived at these conclusions, he is in a position to consider advertising in that paper.

Many a druggist, who has made some such analysis as this of the papers in his town, has decided that he could get better returns for less money if he cut out the newspaper advertising and used some other form. For example, some druggists have made a careful list of all the families on all of the streets from which they draw trade. They get up circulars every week or every two weeks, or every month—just as they feel able to do so—and distribute them to all of these families. When the boy is

== THE CHILDREN ==



THE children know us; they know an unusual pleasure and satisfaction in coming to our store. You can send them to us to perform your errands; to get the simplest drug store product or the most vitally important medicine. We shall serve them cheerfully and carefully. We offer you and the child satisfaction and pleasure in every respect.

(Name and address)

delivering the circulars they have him carry with him samples of goods which the manufacturers supply. In this way they establish themselves as headquarters for that manufacturer's goods, they make the boy's visit more welcome to the homes and they also get readers for their own circulars.

Other druggists make up the same kind of a list of names and then send postal cards to all of them—one card every week. Others use multigraph letters.

On the other hand many druggists are surprised at the number of papers which are delivered into their own territory. They have more faith in the newspapers. They do not "wonder" why it pays them more or why it pays them so little. They do not "wonder" why it seems so hard for them to get returns out of the newspaper advertising.

If it were not so pitiful it would really be laughable—the carelessness displayed by retailers in buying advertising from newspapers. They know so little about what they are buying. Suppose, for example, that a druggist should order a shipment of tooth brushes (amounting to \$100). He does not specify how many tooth brushes there shall be, and when the shipment arrives he does not count the number sent. One would say that such a druggist is a fool. Yet that is exactly what many druggists are doing every year. An advertising solicitor comes to them and says: "I will sell you this 3-inch single column advertisement, on page 5, next to reading matter for \$100 for the year." The druggist says, "All right, I'll take it." He does not know how many papers carry that advertisement each day; he does not know how many of these papers go into his territory; he does not know the quantity he has ordered, nor the quantity he gets. It is a preposterous condition of carelessness—"blind" buying.

Advertising never will get its just deserts until merchants stop treating it as a "shell game" or a "lottery" or a "horse race." Advertising must be studied and must be reduced to the greatest possible accuracy in every detail if it is to take its place where it really belongs.

Another form of inaccuracy in advertising, which is a great loss to the druggist, is in connection with the distribution of advertising matter. A dealer gets out a little booklet. He puts a package of them on his counter; a few are taken away. The rest get covered with other advertising matter or packages of goods; and, possibly for three or four weeks, none of those booklets are being sent out. The druggist wonders why this advertising has not paid him; and he arrives at the conclusion that booklet advertising is a failure. It is not a failure; his method of distribution has been a failure; that's all.

Take another case. The druggist gets out a circular; he hires the local, licensed distributor to deliver these circulars to all the houses in that locality. He does not inspect the work of this distribution to see whether it is really done or not; he does not ascertain how many are thrown into back lots, how many are left in each house, or whether the whole territory has been covered thoroughly. He comes to the conclusion that circular advertising does not pay, because this distribution does not bring him returns. The failure is not due to the circular; the failure is due to the distributor.

Here is another case. The advertiser gets out a nice, little folder to mail to all of the people in his community. Let us say there are 2,000 of the circulars. He tells a clerk to do the work. The clerk gets 2,000 one-cent stamps; he starts to work to address the 2,000 circulars. When he has addressed 1,600 of them he gets tired; he burns up the rest of the circulars and keeps the \$4 worth of stamps himself. The druggist wonders why these 2,000 circulars have not brought him more returns. Suppose the 400 destroyed by the dishonest clerk were to go to the rural free delivery routes around the town. The druggist pays close attention to see whether this folder brings him good returns or not. He notices that quite a few of the town people come in for the goods advertised, but that none of his country customers do so. He decides that it does not pay him to send folders to the country trade. He loses trade because he does not have accurate information.

In addition to the inaccuracy regarding circulations of newspapers and inaccuracy regarding the distribution of direct mail matter, there is loss from a third form of inaccuracy. The druggist gets into the habit of making inaccurate statements in his advertising. To-day that form of inaccuracy constitutes one of the very greatest losses in advertising.

A few days ago I had the pleasure of sitting next to a very successful advertising man at a banquet. He and I were talking over how we got started in advertising. He said that his father owned a dry goods store in the Central West; the son (this man) took care of the advertising. He conceived the idea of demonstrating to the people of that town that his father's firm did not exaggerate in its advertising. One day his father bought a special lot of gingham, which were sold about town for 11c. per yard, but which his father's store could sell at a profit at 8c. per yard. The goods cost 6½c. per yard. So he advertised these gingham at 6c. per yard and stated their value as 8c. per yard. As a result the usual round of shoppers looked at gingham in the other stores, then looked at these gingham and found that these were the same quality of gingham which had been offered in the other stores at 11c. on which there was put a fictitious value of 15c. per yard. The shoppers came and looked at these gingham, bought some of them, went to other stores and compared the goods or took the goods home and compared them with other goods there, or compared them with other goods among their friends, with the result that the next day they came back after more and the third day the store was packed with people after those gingham at 6c. per yard. He said that one act did more to convince the people that his father's store did not exaggerate than all the advertising talk that they had put out in the previous year. That sale proved so successful that all of the rest of the people in the store believed that the son had the right idea about not exaggerating. Ever afterwards the people of that store were content to have their advertisements come out with a lower "value" put after quotations on goods than was stated by other stores, because they found that the store itself gained confidence among all the people by that method.

Pick up newspapers anywhere in the country and see what the druggists are saying about their prescription work. It cannot all be "the most accurate." The dozen druggists in the same town cannot all "save you 25 per cent. on all prescriptions."

Really, a merchant who pays so little attention to his advertising that he is willing to continue to make such worn-out statements as those quoted ought to save his money and not waste so much of it in advertising. Either a person should get into the habit of making accurate statements in his advertising, thereby building up a solid and dependable list of customers, or else he should cut out his advertising. The exaggerated, untruthful, inaccurate kind of advertising has been proven beyond denial to be the most wasteful and costly kind of expense. The advertising that establishes confidence, that brings a customer,

that extends the reputation of the store for fair treatment is the profitable kind of advertising. Any merchant who does not realize this fact is away behind the times.

A fourth great loss through inaccuracy is due to that form of it which has to do with blindly advertising anything that may happen to strike the fancy of the advertiser. This form of inaccuracy comes from the fact that the merchant does not try to keep a reliable record of the results from his advertising. Every merchant ought to have an advertising record book. In that book should be posted the advertisements which he puts into the paper, the date of the insertion and the cost. Opposite, at the head of the blank page, should be written the word "Results," below that should be written (1) The total sales on that day; (2) the total sales of the goods advertised that day; (3) the total sales for the week following, or until the sales cease to be affected by that advertisement; and (4) the total sales of the goods advertised, for the length of time that those sales are affected by the advertisement.

When a circular is issued that circular should be given a page in the book and on the opposite page should be written down a record of results. If a general letter is sent out that should be pasted in the book, and every clerk should keep a record of the number of people who speak about that letter during the week following its mailing, and these records should all be recorded in the book.

Lots of druggists do not know that department stores are constantly advertising goods in one paper at a time and keeping a very accurate record of the sales of those goods in order to test the advertising value of that paper. This is really the way most department stores determine the value of a paper. A new department store opens in a city; it makes a contract with all of the newspapers for the first year. During that entire year it keeps testing one paper after another. When the second year comes, it may cut out two or three papers, because, through a series of tests, it has found that those papers do not bring it returns commensurate with the cost of advertising in them.

If the retail druggist will keep such a record book as is described above, he will learn what kind of goods to advertise. When he knows what kind of goods to advertise, in order to get the most returns at the least cost, he will then know what departments in his store to enlarge. When he knows what goods, when advertised, sell the least, he will know what departments in his store do not appeal to the public. Then, it is his business to find out why those departments do not appeal to the public. He must see whether his prices are too high, whether his goods are right, or whether his clerks in those departments are taking care of the customers properly. Such a record book as this is indispensable to accurate knowledge of trade conditions in the store.

Any retailer who has read this far should have clearly in his mind the four forms of inaccuracy in advertising which are the causes of the greatest losses. Let me repeat them: First, inaccuracy about extent of circulation; second, inaccuracy about distribution of matter; third, inaccuracy about the wording of advertisements; fourth, inaccuracy about returns from advertising.

It is not saying too much to claim that, if the 44,000 druggists in the United States would take this chapter absolutely to heart and revolutionize their advertising upon these four principles, they could, in a year's time, double the value of their advertising without adding one cent to its cost.

Accommodation the Life of Trade.

It was an overcast, indeterminate sort of a day but the drug clerk was cheerful as he whistled behind the prescription desk and chatted with a friend in the front shop. Presently a customer came in and made a small purchase. "Fine day," he remarked. "Great!" replied the clerk, enthusiastically. The customer went out and was followed by another. He, too, made a small purchase and commented on the weather. "Mean weather," he remarked. "Beastly!" said the clerk, dolefully. "Getting warmer," remarked a third customer. "Hot!" said the clerk. Ten minutes passed. Another individual drifted in from the outside world and made a purchase. "Chilly, isn't it," he said to the clerk. "Cold as the pole!" agreed the clerk, with a shiver. His friend had listened to these exchanges with interest. "See here," he demanded, "what kind of weather do you think this is anyway?" "Same kind as the customer," replied the drug clerk.—A waif.

Munyon "Remedies" Declared Misbranded.

In the United States district court at Philadelphia, December 14th, counsel for the Munyon Homeopathic Home Remedy Company pleaded guilty to misbranding certain of its goods, and Judge McPherson imposed a maximum fine of \$600, being \$200 on each of the three bills of indictment.

The Munyon company was indicted under the food and drugs act following complaints made last June to Special Agent Jenkins of the board of food and drug inspection. Charges of misbranding were preferred and allegations were made in the indictments that the "remedies" were not effective for the diseases as declared on the labels of the packages. The "cures" that came under the ban were labeled "Munyon's special liquid blood cure," "Munyon's asthma cure," and "Munyon's blood cure."

Prof. E. A. Ruddiman, of Nashville, Tenn., was a witness for the government and testified that he found upon analysis nothing but sugar in the "blood cure." The attorney for the defense interposed an objection to this, stating that he could not see how the ingredients of these medicines could have anything to do with their misbranding. "It is very material for the court to know whether the charges are serious or merely trivial," interposed Judge McPherson, overruling the objection.

Prof. Ruddiman further testified that the "asthma cure" consisted essentially of cane sugar with a trace of alcohol and that the special \$2 liquid "blood cure" contained [corrosive?] "chloride of mercury, potassium [iodide?] and sugar of milk."

Dr. E. M. Gramm, of Philadelphia, corroborated the testimony of Prof. Ruddiman, and declared that the "cures" were worthless.

The attorney for the defense stated that the company was changing its labels to meet the requirements of the law.

Fined for Adulteration.

On December 14th J. L. Hopkins & Co., of this city, were fined \$400 for adulterating and misbranding drugs, by Judge Hough, of the United States circuit court. The charge was that on April 8th, 1908, it had sold to W. R. Scudder, of Newark, N. J., and shipped in interstate commerce, a lot of drugs in which there was a package labeled belladonna root, about one-half of the contents of which was ground olive pits; a package labeled powdered henbane in which hyoscyamus muticus was found; a package labeled gentian root in which an unknown ground fiber was detected; and a package labeled powdered cloves, from one-third to one-half the contents of which consisted of clove stems.

The defendants in the case had previously entered a plea of "not guilty," but their counsel changed this to a plea of "guilty on technicalities" and paid a fine of \$400.

In a lengthy statement published in the *Oil, Paint and Drug Reporter*, Mr. Hopkins tells why he made the plea he did, and positively asserts that all drugs sold by his house are unadulterated and in full accord with the requirements of the Pharmacopœia and the law.

Antikamnia Case Appealed.

An early hearing is expected in the appeal of the government from the decision in the Antikamnia case (see last month's CIRCULAR, page 654). The federal attorneys have laid their objections to Judge Clabaugh's decision before the court of appeals of the District of Columbia; and will, it is believed, carry the matter to congress in case the finding of the lower court is supported.

It has been intimated that the food and drugs officials have been in favor of carrying the case to the United States supreme court if necessary in order that a final interpretation of the contested provisions of the law be arrived at. The developments, however, seem to point toward the petitioning of congress for the amendment of the law so as to provide for the statement of the parent substances, also of derivatives, the presence of which must now be declared upon the labels.

A press dispatch from Chicago, dated December 21st, told of the arrest of A. G. Wheeler, consul for the Republic of Panama and a former professor of chemistry in the University of Chicago, on the charge of misbranding and adulterating a headache-powder nostrum.

"Spearmint" not a Trade-Mark for Chewing Gum.

Some time ago the United States circuit court for the southern district of New York ruled that the word "spearmint" constituted a valid trade-mark for chewing-gum and that unfair trade methods had been employed by the defendants in imitating the wrappers, labels and coverings of the packages used by the complainant in the action of William Wrigley, Jr., & Co., against the Grove Company, Samuel Grove, Jr., Charles E. Blauvelt, and Simon S. Schiener. This ruling has been modified by a recent decree of the United States circuit court of appeals, on an appeal by the defendants against the action of the lower court in restraining the use of the word "spearmint" and the alleged simulated covers and wrappers.

From the decision of the appellate term it appears that the complainant had no exclusive property in the word "spearmint," which was descriptive when applied to chewing-gum, and that no one could deprive other manufacturers of its use or appropriate it as a trade-mark. On the other hand, the court sustained the count on unfair competition in the use by the defendants of other words and symbols in connection with "spearmint" so as to induce the public to believe that the spearmint gum of the defendants was the product manufactured by the complainant.

The question as to damages alleged to have been sustained through unfair competition will be taken up shortly.

Federal Legislation in Prospect.

In his message to congress, which reassembled in December to sit until the terms of all the representatives and many of the senators expire on March 4th, President Taft expressed himself as favorable to the creation of a bureau of health, and the attitude of Secretary of Agriculture Wilson, as expressed in his report, is not unfriendly to a department of health, provided his department, with its various bureaus, having charge of the health of animals—such as the bureau of animal industry—shall not be dismembered or taken from the jurisdiction of the department of agriculture.

Parcels posts is receiving support, too, in administration circles, and a strong effort to get a law to establish this innovation will be made.

Various food and drugs bills in the nature of amendments to the present act, are now or will shortly be before our national lawmakers.

President Taft is understood to be opposed to the opening of a debate on the Sherman anti-trust law during the present short session of congress, so no change in that act is expected for a while.

Foreign Medicaments in Cuba.

In September, last, the Cuban health officials, perplexed by the appearance of home-made imitations of various American nostrums and proprietary medicaments, gave a stricter interpretation of the pharmacal regulations of May, 1909, so as to require the label of each preparation to bear the name of the actual compounder, and further to require that this compounder "possess a diploma from a university" authorizing him to practice pharmacy in his own country. The superseded interpretation had required the name of the proprietor or manufacturing company to be given on the label.

Obviously the later requirement could not practically be complied with in many instances, even though the "university diploma" was not literally expected. Complaint was therefore made through the State department; and after considerable diplomatic correspondence that department has announced a return to the earlier requirement, with the provision that a consular certificate of identity be filed by the foreign manufacturer whenever a doubt exists in the minds of the Cuban authorities.

Near-Vanillas Barred in Oklahoma.

The attorney-general of Oklahoma has advised the food commissioner that the State law is violated in the sale of imitation vanilla flavoring preparations. Extracts labeled "Vanilla and tonka flavoring extract; extract of vanilla, 35 per cent.; extract of tonka, 65 per cent.; caramel color," or "Vanillin flavor; caramel coloring," will not be in conformity with the provisions of the law.

News of the Pharmacists in the Federal Service.

The following official announcements have been made:

NAVY.

Pharmacist H. E. Sausser, appointed November 21st, was ordered to duty at the naval hospital at Annapolis, Ind., November 28th.

PUBLIC HEALTH AND MARINE-HOSPITAL SERVICE.

Pharmacist Henry Gahn received a grant of two days' leave of absence from November 12th and one day's leave of absence from November 19th.

Pharmacist F. S. Goodman received a grant of ten days' leave of absence from December 22d.

Pharmacist L. W. Ryder received a grant of five days' leave of absence from November 21st, and was ordered to report to the director of the hygienic laboratory November 25th.

Pharmacist Frank L. Gibson received a grant of two days' leave of absence from October 28th.

Pharmacist J. L. Osborn received a grant of thirty days' leave of absence from November 28th.

Pharmacist G. A. Morris was relieved from duty at St. Louis Mo.; and directed to proceed to Chicago, Ill.

Pharmacist L. C. Spangler was relieved from duty at the hygienic laboratory November 25th, and ordered to the marine-hospital station at Washington, D. C.

Pharmacist G. I. Van Ness, Jr., was relieved from duty at Chicago, Ill., November 25th, and directed to proceed to St. Louis, Mo.

Pharmacist H. Megaw received a grant of twenty-five days' leave of absence from November 9th.

Pharmacist H. D. Leech, appointed November 17th, was ordered to report to Stapleton, N. Y., for duty, November 21st.

Pharmacist G. W. Iltis received a grant of seven days' leave of absence from November 27th.

Pharmacist C. H. Bierman received a grant of fourteen days' leave of absence from December 16th.

Pharmacist F. L. Brown received a grant of seven days' leave of absence from December 24th.

Federal Positions Open.

The United States civil service commission announces that on January 21st an examination will be held to secure eligibles to fill vacancies as they may occur in the positions of *scientist in soil chemistry* in the bureau of soils, at salaries ranging from \$1600 to \$2000 per annum. The age limit is twenty years or over and applicants will be required to have pertinent education and training, experience, and to have made original investigations. Chemists are wanted who have the degree of a doctor of philosophy, from an American university, or its equivalent in physical, organic, or biological chemistry and related subjects, including mineralogy. Applicants should apply at once to the commission for examination form 304 and the special form for this examination.

On January 18th an examination will be held to secure eligibles to fill a vacancy in the position of *chemist* in charge in the customs service at the port of Philadelphia, Pa. The salary attached is \$2000 per annum. The examinations will consist of tests in general physics and general and analytical chemistry. Training and experience will also be a factor. Men only, who have reached their twenty-first but not their fifty-fifth birthday will be admitted to this examination and it is necessary that the appointee shall have a broad theoretical training and experience in organizing and directing a chemical laboratory. Applicants should apply at once for form 1312. No applications will be accepted unless properly executed and filed with the commission at Washington prior to the close of business on January 7th.

Dr. Wiley Receives a Medal.

Dr. H. W. Wiley, chief of the bureau of chemistry of the United States department of agriculture, was recently in Philadelphia to attend meetings of committees for revising the Pharmacopœia. While there he was a guest of honor at two luncheons and a dinner, and delivered an address before the members of the Franklin Institute, from which he received the Elliott-Cresson gold medal, awarded to him in recognition of his contributions to science.

President Walton Clarke, of the Franklin Institute, eulogized the recipient's work as being of enormous benefit to

the world. In his acceptance of the honor, Dr. Wiley discussed "Applications of Chemistry to Public Welfare," and declared that not only foods and drugs, but many other products should be sold on principles of honesty and be true to the labels they bore. He expected a material strengthening of the present food and drugs acts, federal and State. Early in his career, Dr. Wiley said, he had conceived the idea that a man who eats was entitled to pure food and a man who is sick is entitled to pure drugs. He was glad to be able to say that the ranks of the adulterators were broken and that their political influence had lost much of its force.

The Pharmacist's Duty.

Recently the Maine supreme court denied the petition for a new trial presented by a druggist convicted in the Androscoggin county court and mulct for damages amounting to \$1,400, because of alleged negligence in dispensing tablets of corrosive mercuric chloride instead of chlorodyne tablets. The defense offered was that the error was a natural one in that the two preparations were in adjacent bottles on the same shelf, and that in general appearance the tablets were very similar.

Justice Whitehouse, who drew up the opinion of the higher court, said that it was inconceivable that the dispenser had given any especial attention to the labels on the shelf bottles or to the tablets themselves which were of a different color from those prescribed; and that "although the defendant may have been a skilful and competent druggist, he unfortunately omitted on the occasion in question, to exercise such care and prudence and to take such reasonable precautions as the safety of his customer and the measure of his legal duty required."

Progress in Pharmacopœial Revision.

Work on the ninth revision of the United States Pharmacopœia is said to be rapidly assuming shape.

On December 21st a meeting of the sub-committee on scope was held at which additions, deletions and changes in standards were discussed. The first installments of the work of this committee have been submitted to Chairman Remington, with the unanimous approval of its members.

On December 22d the executive committee of the committee of revision met at the home of Prof. Remington, at Philadelphia, and resolutions were adopted to the effect that the hygienic laboratory at Washington be requested to furnish for the introductory chapter of the Pharmacopœia methods for determining boiling points, melting points and solubilities, to insure uniformity and greater accuracy; and that the methods used for testing standards by the official association of agricultural chemists be used as far as possible in the revision of the Pharmacopœia.

It was announced that no choice had been made in the election to fill the vacancy caused by the recent death of C. S. N. Hallberg, of Chicago, as no candidates nominated had secured the requisite twenty-six votes, a majority necessary for election. J. B. Godding, of Boston, received 16 votes, the highest number cast for any one candidate. Prof. A. H. Clark, of Chicago, was second on the list, the others being E. G. Engstrom, of Pittsfield, Mass.; W. B. Day, of Chicago; Maj. F. F. Russell, of Washington; Dr. C. G. Spalding, of New Haven; and Dr. W. E. Quince, of Chicago. The latter is said not to be eligible for membership in the committee, on the ground that he was not a member of the convention.

Anti-Narcotic Progress in China.

A resolution recently passed by the Chinese senate aims to suppress the sale and use of opium in the Celestial Empire by drastic means. The interprovincial transportation of the drug will be absolutely prohibited after July next, and beginning in January, 1912, the planting of poppy and the smoking of opium will be severely punished. An effort is being made to abrogate the opium treaty with Great Britain and thus prevent importations from India.

The British *chargé des affaires* at Hong Kong has promulgated a decree making punishable by fine and imprisonment the manufacture of any cocaine in China by a British subject or the importation of any cocaine by any one holding British allegiance. The provisions of this decree apply also to apparatus for the injection of cocaine.

New York Alumni Banquet.

What is said to have been the best attended and most successful annual dinner of the Alumni Association of the College of Pharmacy of the City of New York, Columbia University, was held in Healy's jungle room on the evening of December 7th.

The guest of honor and orator of the evening was Dr. H. W. Wiley, chief of the bureau of chemistry of the department of agriculture at Washington. He spoke of the pharmacist and his work and urged his hearers to uphold the ethical side of pharmacy. The trouble has been, he said, that for the sake of profit the pharmacist has been willing to sacrifice the nobler work of his profession. In his opinion profit which came from the sale of unethical preparations might better be left unmade. He cautioned the druggists against the sale of narcotic-laden medicines, and of beverages sold at the soda fountain which contain harmful drugs. The druggists, as men of education, he said, owed it to the public at large to protect the unsuspecting from harmful and injurious preparations.

In speaking of the relations between the professions of medicine and pharmacy, he wished to see the differences of the members of each harmoniously adjusted. He expressed a desire that the Pharmacopœia should be a book representing the harmonious collaboration of the two professions. While the contentions of the pharmacist may be right, said Dr. Wiley, he should remember and be ready to understand that perhaps his opponent may also be right and it is possible nearly always to tolerate and yet not to sacrifice principles.

He spoke of Ehrlich's discovery of the efficacy of dioxydiamidoarsenobenzol as a triumph in pharmacy. The demonstration of a discovery such as this, in his opinion, was ample proof of the need of co-operation and good feeling between the two professions.

Dr. H. H. Rusby spoke of the lack of knowledge among physicians with regard to drugs and medicines. He felt that from his experience as a teacher he was qualified to speak on the necessity of promoting good citizenship and high moral principles. The greatest reward, in his opinion, for effort expended was in being able to do something for others.

Albert Plaut said that he was an optimist and a firm believer in a great future for pharmacy, credit for which he felt was largely due to the pharmaceutical press and to the institutions of learning.

Among other speakers were Ewen McIntyre, J. R. Wall, A. S. Evans, president of the New York State Pharmaceutical Association, and C. A. Mayo.

Manhattan Association.

The first afternoon meeting of the Manhattan Pharmaceutical Association was held December 19th. It is expected that with the reduction of the dues from \$5 to \$2, the change in the hours of meeting, and the renewal of activity among the members in securing applications for membership, the association will once more become a factor among the pharmaceutical associations.

The changes in the by-laws necessary to the new order of things were discussed at length and will be acted upon at the next meeting.

It was decided to have application blanks printed and to supply the members with them.

F. N. Pond spoke of the ruling of the fire department which forces the druggist to pay \$50 a year for a manufacturer's license to prepare and sell insecticides of a combustible nature. He said that a grocer could carry in stock a barrel of gasoline, paying but \$10 for the privilege, and the druggist could sell insecticides of another's manufacture and carry them in quantities; but to prepare his own in any quantity was forbidden without a permit and the payment of the \$50 tax.

On motion of G. H. Hitchcock it was decided to appoint a committee to act in conjunction with committees from other pharmaceutical organizations in an endeavor to secure a modification of this ruling, or a different interpretation of it.

Much dissatisfaction was expressed with the small commissions paid by the telephone company to druggists having public telephones. A committee consisting of Charles H. Lowe, R. R. Smith, Louis Berger, and G. H. Hitchcock, was appointed to confer with a similar committee of the German Apothecaries' Society relative to a plan for bettering these conditions and securing a higher rate of commissions.

German Apothecaries' Society.

Discussion of the anti-opiate ordinance of the municipal board of health took up practically all the time of the November meeting of the New York German Apothecaries' Society. The subject was introduced in a report for the legislative committee by S. V. B. Swann. He presented the present status of the ordinance and expressed the belief that it would soon be modified in accordance with the desires of the conference of the local organizations.

E. C. Goetting replied at length to this report. His advice at the preceding meeting had been to lay the matter before the mayor, but it had not been agreed to. Personally he had proceeded in that fashion, and had received in reply a letter signed by the mayor himself, which was very encouraging, and he was convinced that the change of front on the part of the health department, announced by Mr. Swann, was to be contributed solely to his letter to the mayor. Energetic action on the part of the druggists against unjust attacks he thought absolutely necessary. He could not understand why THE DRUGGISTS CIRCULAR in its October issue had printed an editorial which designated the ordinance of the health department as a necessary measure (see the CIRCULAR for October, page 498). As the CIRCULAR was among the oldest pharmaceutical journals and, he said, in some circles passed as the most esteemed and influential, he thought it necessary to answer the views and attacks of this paper in an open letter, in order that the article might not harm the druggists during their endeavors to modify the law (see last month's CIRCULAR page 639).

Mr. Goetting strongly admonished those present to see to it that the pharmaceutical organizations of the city were united in a council of delegates, according to a plan which he had proposed two years before; for only in that way, said he, could the druggists gain and keep any advantage. Dr. W. C. Alpers and Felix Hirseman were also of this view; the latter especially regretted that Mr. Goetting's plan, which he had so warmly recommended at that time and which had received such favorable criticism in the pharmaceutical press, had not been carried out.

A committee of five was appointed to present nominees for the various offices of the society at the next meeting.

After the business meeting a "kommers" was held, with vocal and instrumental musical selections. A "trauerschoppen" was drunk to the memory of Prof. C. S. N. Hallberg.

The meeting held December 1st was the annual meeting and after the minutes of the preceding meeting had been read the treasurer gave a report of the year's financial matters, and several communications were read.

Chairman S. V. B. Swann, of the legislative committee, announced that there had been no new developments with regard to the anti-opiate ordinance of the board of health. He added that the pharmacist need not be at all uneasy about this ordinance, and if an inspector should buy paregoric or cholera drops and then, showing his credentials, ask under what right the pharmacist sold such substances without a physician's prescription, the seller need only point to his diploma, with the remark that the board of pharmacy had given him this right. If the pharmacist was certain that the customer was a spy sent out by the board of health, he should politely tell him so and emphatically order him out.

President George Kleinau, in his annual address, among other things, called attention to the activity of the pharmaceutical legislative committees, which after much exertion had succeeded in getting an acceptable pharmacy law passed. Although this law was not to him entirely ideal, yet it deserved, just as did the new board of pharmacy, the full support of all members of the society. He thought it would be desirable if one of the members of the board of pharmacy could give a report of the doings of that body every three months, in order that the society might have plenty of opportunity to work hand in hand with the board. According to his view, it was not now advisable or necessary to propose new laws, but efforts should be made to have the law requiring the certification of all sales of cocaine on prescriptions repealed.

He also called attention to the distinction attained by members of the society, three of them being selected as members of the board of pharmacy, and three being members of the general committee of revision of the Pharmacopœia. He asked that these members from time to time acquaint the society with the work in which they were engaged.

He expressed regret that none of the members had been elected to office in the New York State Pharmaceutical Association and advised a policy of "No representation, no donation."

In conclusion he thanked the pharmacal journals for their manifest interest in the affairs of the society.

The speaker of the evening, Prof. C. P. Wimmer, was introduced by Chairman Emil Roller of the scientific committee, and gave an interesting and instructive lecture on "The Chemistry of Alkaloids." An extended discussion followed the lecture, in which Dr. F. von Oefele and Otto Raubenheimer took a prominent part.

An appropriation of \$500 was made for the purpose of arranging a fitting celebration of the society's sixtieth anniversary in October next.

The society also decided to contribute \$1000 to the building fund of the proposed Deutsche Haus for the use of the United German Societies.

The election resulted in the uncontested return of the retiring officers to their several stations. The official family is constituted as follows: President, George Kleinau; vice-presidents, Dr. C. F. Klippert and P. F. Gebicke; recording secretary, O. P. Gilbert; corresponding secretary, E. A. Boetzel; treasurer, R. S. Lehman; architect, George Leinecker; librarian, G. C. P. Stolzenburg; and trustees, E. C. Goetting, C. F. Schleussner, and Otto Raubenheimer.

Sales of Solution of Hydrogen Dioxide in this State.

Solution of hydrogen dioxide when offered for sale in original packages has the status in this State of a proprietary medicine, that is it may be sold by others than registered pharmacists or druggists and elsewhere than in a pharmacy or drug store. This is the inference to be drawn from the fact that the appellate term of the State supreme court has confirmed the finding of the trial court in the case of the New York Board of Pharmacy against E. W. Woolworth & Co. (see the CIRCULAR for August, 1910, page 442).

No opinion was expressed by the appellate justices, who were unanimous in their decision that the lower court did not err in ruling that the supervision of a registered pharmacist was not necessary to the protection of the public health in the sale of original packages of solution of hydrogen dioxide.

New York Alumni Annual Ball.

The annual ball of the Alumni Association of the College of Pharmacy of the City of New York, Columbia University, will be given at the Eldorado Hall, Fifty-second street and Seventh avenue, on Wednesday evening, February 1st. The hall is one of New York's newest, where every convenience is at hand. Those who care to indulge in a good supper can do so there, and at any price.

It is the desire of the committee in charge to make this one of the best affairs that the association has ever had, and it cordially invites all the members and their friends in both the wholesale and retail trade to be present.

Tickets and full particulars may be obtained of Roy Duckworth, chairman, or George Hohman, secretary of the ball committee, 115 West Sixty-eighth street, New York.

Reception at the New York College.

Prof. C. E. Vanderkleed, of the Medico-Chirurgical College of Pharmacy, Philadelphia, will deliver a lecture before the alumni association of the New York College of Pharmacy, at the college building, 115 West Sixty-eighth street, on January 11th, at 8:30 p. m., on chemical and physiological standardization. After the lecture there will be a reception and dance, with refreshments.

All pharmacists interested are invited to come and to bring their wives, daughters, sisters and sweethearts; no special invitations are needed.

Adrian Paradis, the well known Brooklyn druggist, was recently appointed a member of a committee which will represent the people of the Rockaway suburbs in an endeavor to secure improvements for that section of the city. The slogan is "No taxation without improvement" and many of the Rockaway property owners and citizens are in favor of petitioning the legislature to separate the Rockaway portion of Long Island from the City of New York, and to permit it to be incorporated as a distinct balliwick.

A Scientific Institute for This City.

There is in the course of erection at 50 East Forty-first street, this city, a ten-story building which seems destined to serve well in the advancement of science in this country. This is the new building of the Chemists' Building Company, an organization that purposes the inspiration of chemical science and industry. The first five floors of the building will be occupied by the Chemists' Club and will afford all the appurtenances of a social club, together with a large auditorium for scientific meetings and ample space for a complete chemical library and museum. It is situated in close proximity to the Academy of Medicine, the new public library and the engineering society headquarters.

The five upper stories have been especially constructed for laboratory purposes, and will be rented either as entire floors, or in suitable subdivisions, to analytical, commercial or research chemists, physicists, bacteriologists, etc.; but not as manufacturing laboratories. They are provided with ventilating flues, water, gas and electric mains, steam, refrigerating and compressed-air lines, in suitable locations; but the tenants are expected to make their own connections and provide their own fixtures. It is intended to charge low rentals and in many ways facilitate the prosecution of scientific and industrial research.

Location in the building will afford command of a complete chemical library; opportunities for social and scientific intercourse; the natural meeting place for out-of-town chemists and manufacturers, for whom the club provides excellent apartments; possibility for reduction of laboratory expenses through co-operative installation of expensive apparatus. Its value to scientific pharmacists, pharmacologists, and pathologists is evident.

Brooklyn Druggists Enjoy Themselves.

As its first social effort the Long Island Drug Club, of Brooklyn, held a "smoker" on the evening of December 19th. A pleasing vaudeville entertainment had been provided and there were smokes of every sort and plenty of refreshments.

Aside from the acts of the professional talent there were contributions of entertaining and interesting talks by H. A. Metz, former city comptroller, Dr. Davis and others.

At the business meeting which preceded the festivities officers for the first fiscal year were elected as follows: President, Alexander Gardner; vice-presidents, J. P. Rippling, Clifford Barber, and Edward Schott; treasurer, A. H. Higbie; financial secretary, J. H. Lilienthal; corresponding secretary, R. E. Lutz; and directors, Otto Raubenheimer, G. C. Diekman, W. T. Creagan, and H. C. Maigs.

New York's Anti-Opiate Ordinance Still in Force.

At the regular meeting of the board of health of this city held December 20th, it was expected by many that some action would be taken toward modifying the much discussed anti-narcotic ordinance. A committee representing the pharmaceutical organizations of the city had been present at a hearing before the board just prior to this meeting. The subject was not taken up, however, at the regular meeting.

Just what the final outcome of the discussion of the ordinance will be seems at present to be a matter of debate, with the odds very much on one side.

Taking Care of Teeth.

School inspectors in this city report that 90 per cent. of school children are in need of the professional services of a dentist. Two dentists, Dr. H. L. Wheeler, of New York, and Dr. W. A. White, of Phelps, have been employed by the State to give public lectures on the subject of oral hygiene and the prevention of tooth decay and consult with local health boards and school authorities with regard to the inspection of the teeth of school children and the opening of free dental clinics.

It is reported that the text of the lectures on oral hygiene will be that a clean tooth never decays and that a lazy tooth becomes in time a decayed tooth.

Otto Raubenheimer, of Brooklyn, N. Y., a man of many parts, is not circumscribed by any geographical boundaries. He has recently received the diploma of a member d'honneur du Congres International de Pharmacie, 1910.

Kings County Society.

What the meeting of the Kings County Pharmaceutical Society, held December 13th, lacked in numbers it made up in enthusiasm and interest. The smaller than usual attendance was due no doubt to the holiday season.

The report of the treasurer, Adrian Paradis, showed a balance to the credit of the society of \$301.75, and to the credit of the Brooklyn college of \$11,497.94.

For the legislative committee, William Muir reported that a committee representing the conference of the pharmaceutical organizations of this city was invited to be present at an interview with the board of health sometime during the week. He also spoke of the Foster bill, which is again before congress, and which he said imposed a hardship upon the druggists in that it provides that wholesalers shall pay a tax of \$10 and the retailer a tax of \$1 for the right to sell narcotic drugs. He contended that the bill was objectionable not alone from the tax, but from the fact that to secure a license for the privilege of selling small quantities of such drugs as most druggists do, a bond must be furnished.

Mr. Muir, in behalf of the telephone committee, also reported that the public service commission had nothing to do with establishing or regulating the rates of commissions to be paid to those who have public telephone stations. The difficulty seemed to be that no special rate may be given, but that the rates of commission must be alike to all who operate pay 'phones. The committee hoped to be able to report an increase in commissions at the next meeting.

Charles Heimerzheim announced that the propagandic work of the trade matters committee was progressing and that the post cards for use by the members in calling the attention of the physicians to seasonable official preparations were ready for distribution.

A motion was made that the post cards be sent upon request to druggists who desired them, free of charge. There was some discussion as to the advisability of sending them free, many of the members feeling that the druggists would be willing to pay a nominal price for the cards. After some debate the motion was carried. An appropriation of \$100 was made for the work of the committee.

Otto Raubenheimer, chairman of the committee on pharmaceutical affairs, introduced J. Leon Lascoff, a member of the New York Board of Pharmacy, who read a paper on "Difficulties in Dispensing." This paper is given in full on page 19.

Joseph Kahn stated that he had found it practicable to make a mass of ichthyol with a little magnesium oxide and water, and to secure ichthyol in a powdered form by triturating it with three times its weight of magnesium oxide. [Magnesium oxide is not to be commended as an excipient because masses made with it generally do not disintegrate readily.]

Dr. E. W. Dietrich, in discussing the paper, emphasized the need of pharmacal training for medical students. So much necessary time, he said, was given over to the study of other sciences that the much needed pharmacal instruction was neglected. He said that the physician often showed his lack of pharmacal knowledge in writing prescriptions, and while this condition was deplorable, nevertheless, it was true. In speaking of incompatibles he was of the opinion that many of them were intended and when such was the case the druggist should ascertain the physician's intention before attempting to overcome the incompatibility in any way.

Both Mr. Lascoff and Dr. Dietrich were officially thanked by the society.

It was announced that E. L. King, of this city, would address the January meeting of the society on business-getting methods for retail druggists.

Because as they claim wood naphtha (wood alcohol) produces a speedier intoxication and costs much less than poor whiskey, the drinking of the poisonous spirit is reported to prevail to an alarming extent among the laborers employed along the aqueduct from the Catskills to this city. It is said that several deaths and many cases of severe illness have resulted. An effort is being made to stop the sale of wood naphtha to ignorant foreigners in the towns along the Hudson.

"My little dog has fleas"; the woman cried, "do give me something that will cure them, please." And then the puzzled drug store clerk replied: "What seems to be the matter with the fleas?"—*New York Times*.

Brooklyn Association.

A review of the present pharmacy law and in particular of such phases as seemed of the greatest interest, was the feature of the meeting of the Brooklyn Pharmaceutical Association held November 28th. The regular business of the meeting was hastened, the general report of all committees present being confined to a brief statement of progress.

President Emil Krausche introduced the speaker of the evening, Dr. G. C. Diekman, president of the New York Board of Pharmacy, who spoke on "Pharmaceutical Jurisprudence."

Dr. Diekman referred to the work of the national syllabus committee as being the first step in the unification of State board examinations throughout the country. He spoke of the difference in the application of the terms certificate and license, as understood in the pharmacy law; license referring only to the authorization of a person to practice pharmacy, and certificate applying to the store certificates or to the certificate of an apprentice. It had been found he said that it was almost impossible accurately to test an applicant's knowledge of pharmacy without a greater range of questions, and therefore the many optional ones in the new tests will better determine the ability of the candidate. He said that the law seemed to settle the question of the ownership of the prescription, giving the druggist the right to keep it. He believed that at some future time the doctor would be obliged to pass an examination for the privilege of dispensing medicines. In Pennsylvania he thought consideration was now being given to a law for that purpose.

Many druggists think, said Dr. Diekman, that a person buying poison must sign his or her name to the poison register, but such is not the case, and the druggist who fills in the blanks required in the poison register has fulfilled what the law requires of him. He called attention to the lack of a perfect definition of just what constituted a poison. He spoke of prescriptions calling for cocaine and said that although there was nothing to prevent the doctor writing repeat on a prescription calling for cocaine, yet for the druggist to refill it even then was an offense in the eyes of the law. He related the story of a physician who wrote a prescription for the treatment of a cough, which contained in each dose 1/256th of a grain of cocaine, among other ingredients. In this way the doctor had prevented the druggist from refilling the prescription and also the patient from passing it around among friends. He told of a druggist in this city who, it was reported, disposed of 247½ ounces of cocaine in a short period of time. This same man, he had been told, had purchased in October forty-five ounces in one day. Still another druggist, he said, in the down-town section of the city was reported to dispose of fifty ounces a month. An inspector of the board of health had been notified of this fact, he said, but took no action. He thought that while it might be hard to prove these statements because of a lack of legal evidence, he did not doubt the truth of them.

Dr. Diekman assured his hearers that all alleged violators of the pharmacy law would be given a hearing and that the endeavors of the board would be, to be as lenient as possible, feeling that it would be better to let several who were guilty escape than to punish one innocent one.

A discussion followed Dr. Diekman's talk and several provisions of the pharmacy law were made plain to those who did not fully understand them.

Dr. C. J. Hettesheimer was asked to address the meeting and spoke briefly. He said that pharmacy was not what it had been twenty-five years ago, when conditions were better. Out of the wreck of what was once a noble calling, he said, these association "propaganda" and "formulary" men were trying to rebuild standards, and their example was one which every druggist should heed and profit by. He hoped that the time was approaching when pharmacy would take its stand among the professions, but it would take time and patience; and he felt that like all ideals which are lofty, these things were not to be realized in a moment. Work together, he said, and in harmony, and success will be the result.

Dr. Diekman was officially thanked for his interesting and instructive talk, and was unanimously elected an honorary member of the association. Dr. Hettesheimer was also thanked for his remarks.

Resolutions were adopted in memory of Prof. C. S. N. Hallberg.

At a meeting of the association held December 12th the

reports of the officers were read and the annual election was held. The following officers were elected:

President, David Westheimer; vice-presidents, Fred Schaefer and S. E. Dorn; treasurer, W. L. Schneider; secretary, L. J. Cohen; board of directors, Emil Krausche and Robert Medl (with the president, the secretary and the treasurer).

Manhattan's Hotel World Has Its Drug Store.

Steadily is growing the tendency of the more affluent Manhattanese to free themselves from the burdensome upkeep of a house in town and to spend their between seasons in the luxurious hostelries of the city. This fact, together with the multitude of transients who flock to this city for commercial purposes, makes of some of the caravanseries little cities in themselves. And now one of these "cities," the Hotel Astor, Broadway, Forty-third to Forty-fourth streets, has its own exclusive drug store.

True, there are in hotel buildings in this and other cities drug stores patronized largely by the guests at the hotel. But the Astor store, the venture of F. K. James, is almost unique in that it has no entrance from the street, and caters only to the guests of the hostelry. The store is located in a room opening off from one of the main corridors, just across from the orangerie; and it is fitted up in harmony with the furnishings of the hotel.

The fixtures are of solid mahogany with a relief work of bronze filigree. The show cases are of the buffet style with sliding glass panels opening from the front and lighted by interior electric lights. The electric fixtures of the store are of antique design and in harmony with the entire scheme of arrangements. No proprietary nostrums are kept for sale, although a complete line of the James specialties is in evidence. The prescription department is a marvel in simplicity and convenience, and the cases are arranged at right angles to the windows for the conservation of daylight. No manufacturing is done in this store, but its proximity to the other stores of Mr. James make keeping up stock an easy matter. Obviously the dispensing of asafetida, iodoform or valerian is taboo in this fairyland pharmacy. As side lines there are toilet requisites, confections and cut flowers.

Under the supervision of Mr. James the store will be in charge of a capable manager, and while it is as yet an experiment, its reception so far by the hotel patrons gives every reason for believing it will be a success.

A New Store on the "Rialto."

One of the latest additions to the Broadway pharmacies of this city was opened December 14th, at 1259 Broadway by Haberman & Co. This store is known as "The Chemist Shop" and is fitted up very attractively. The side walls and ceiling are in white, and the fixtures, modern in style, are of dark mahogany. The cases are of the latest pattern and extend the full length on one side of the long room. On the other side are cases half-way down, and then individual display cabinets on pedestals.

No gilt-adorned shelf bottles are to be seen in the front of the store, the galenicals all being in the prescription department. This department is at the rear of the room and is separated from the main part of the store by a partition about six feet high. It is arranged with a view to making it as convenient as possible for the dispensers, and is light and roomy.

A new fountain is being built especially for the store and will be installed shortly.

In keeping with its location the store has a cosmopolitan staff of attendants, who are well acquainted with the ways of the London chemist, the Parisian pharmacien, and the foremost shops of the European capitals.

Merck's Offices Moved.

After having been located fourteen years in the Merck Building at University place and Eighth street, this city, Merck & Co. have moved their offices into new quarters at 45 Park place. This move had been contemplated for some time because it places the company in the center of the wholesale business district of the city and in closer communication with the works and laboratories at Rahway, N. J. This will mean a saving of much time.

Two large plate glass windows in the store of the Pope Drug Company, Broadway and One Hundred and Sixtieth street, this city, were broken by a severe wind storm recently.

To Continue the Milhau Policy.

Although the name of Milhau, long connected with the pharmacy of this city, is fast becoming a memory since the passing of the Milhau store told in the CIRCULAR some months ago, the Milhau policy is being continued by E. L. Ennis, for many years the manager of the Milhau store. Mr. Ennis has associated himself with the Bockar Drug Company and is now the president of the Bockar-Ennis Drug Company, incorporated, with a store in the pathway of thousands of commuters to New Jersey, at the corner of Liberty and Washington streets.

This is not a large store, neither does it aim to compete with the big downtown stores in a multitude of side lines. But it is a complete store, and the motto is "No substitution: We give you just what you ask for." Cigars and soda water are handled, the fountain being in charge of one of the Milhau trained dispensers. The prescription department, says Mr. Ennis, is something more than the stereotyped "specialty."

In the manufacturing laboratory many of the Milhau pharmaceutical specialties are made for the trade, and several Bockar preparations are manufactured.

Nine employees constitute the staff of the store.

Special Lectures at Medico-Chi.

A course of special evening lectures in practical chemistry is being given by the department of pharmaceutical chemistry of the Medico-Chirurgical College of Philadelphia. The lectures, which are free, are delivered in the lecture hall of the college at the corner of Seventeenth and Cherry streets, at 8 o'clock on Monday evenings. Yet to come are the following:

January 9th, "Food Inspection," by C. S. Brinton.

January 16th, "Commercial Bacteriology," by A. P. Hitchens, M. D.

January 23d, "A Phase of Pharmacology," by F. E. Stewart, M. D.

February 6th, "Manufacture of Pharmaceuticals," by W. A. Pearson.

February 20th, "Medicated and Surgical Plasters," by F. B. Kilmer, Ph. D.

February 27th, "Manufacture and Adjustment of Trusses," by Maurice Hallowell.

March 6th, "Custom House Chemistry," by C. C. Roberts.

March 13th, "The Influence of Climate on Plant Life," by W. P. Wilson, D. Sc.

March 20th, "Chemical and Colorimetric Examination of Coal," by R. H. Chapman.

April 3d, "Manufacture of Chemicals," by W. Graham.

April 17th, "Comments on the Correct Practice of Pharmacy," by Ambrose Hunsberger.

April 24th, "The Relation of Chemistry to Pharmacy and Medicine," by J. L. Turner.

Medico-Chi Banquet.

The annual banquet given by the seniors to the junior class of the department of pharmacy of Medico-Chirurgical College of Philadelphia, was held December 14th. The affair is said to have been one of the most enjoyable events of the college history.

Prof. I. V. S. Stanislaus acted as toastmaster, and among the speakers were Drs. Egbert McNeary and Pittenger for the faculty; Howard Aston Bruce Hicks, Robert Wheeler, R. P. Fischelis, Andrew Nealon, and C. Welsh for the seniors. A. O. Wickham and E. Cosgrove responded for the junior class.

Prof. Stanislaus spoke on "Nostrums," declaring that the trade-mark laws protect the nostrum-makers in disposing of worthless and sometimes injurious concoctions. He saw a better future through the influence of true-labeling laws and the freeing of certain classes of publications from subsidization to the nostrum-advertisers.

A promoter believed to be working in the interests of the Riker-Hegeman Company, of this city, is reported to have obtained options on twenty drug stores in Philadelphia. His plan is said to consist in forming a holding company to operate twenty-five stores and then to amalgamate the combination with the New York corporation.

James Falsgiver, of Pittsburg, Pa., so runs a recent news dispatch, sat before an open grate fire rubbing a rheumatic ankle with what he supposed was oil of turpentine. Instead it was gasoline, and it became ignited setting fire to the house and seriously burning Mr. Falsgiver.

Sharp & Dohme's Business not Affected by the Death of Louis Dohme.

Louis Dohme's death, owing to his keen foresight in years ago transferring the active management of his commercial affairs to his trusted associates, will not affect the business of Sharp & Dohme, a house with which he was closely associated during the major portion of his life. This business is conducted by a corporation of which the deceased was president; his brother, Charles E. Dohme, first vice-president; Dr. A. R. L. Dohme, only son of Charles E. Dohme, second vice-president; and Ernest Stauffen, secretary and treasurer.

Louis Dohme had not taken any active interest in business during recent years, preferring to place all responsibility upon the shoulders of the younger, more active members of the corporation and to spend a part of each year abroad. Dr. A. R. L. Dohme for many years has been in general charge of the laboratories. Mr. Stauffen, who joined the firm in 1876, has since then been in charge of its general business department, and since 1893 has managed the business from the general offices at 41 John street, New York.

It is understood that by his will Mr. Dohme, who was a bachelor, made bequests to all the members of the family, the bulk of the estate, which consisted chiefly of stock in the Sandee Company of Delaware, the holding company of Sharp & Dohme, going to Dr. A. R. L. Dohme.

Arizona Association Organized.

At a meeting of the Arizona Board of Pharmacy held in April, last, the members of that body deemed it worth while to strive for the organization of a State pharmaceutical association; and in September there was sent out to the druggists of the new commonwealth a call to organize themselves and become sharers in the benefits of association. Seventy-odd druggists replied in favor of the project, and the new association was launched at Phoenix, November 9th.

At this time and place a committee on constitution and by-laws was selected; and the association was formally organized by the election of the following officers: President, Harry Brisley, of Prescott; vice-presidents, E. J. Huxtable, of Douglass; H. B. Cate, of Phoenix, and W. Y. Hunter, of Flagstaff; and secretary and treasurer, R. P. Roziene, of Phoenix.

National Association of Pharmacologists.

A regular monthly meeting of the National Association of Pharmacologists was held at Columbus, Ohio, November 29th. State and county committeemen were elected and the report of the national organizer was read.

Communications were received and read from the National Pharmaceutical Society, of this city, looking toward affiliation or consolidation, and from the secretaries of various boards of pharmacy.

The association plans to take action relative to itinerant vender laws, after communication with those interested on both sides of the question.

A letter was read from the clerks of Cleveland, Ohio, opening negotiations for the organization of a local branch of the association.

The pharmaceutical press was officially thanked for its support.

Wedgewood Club Entertains.

About forty-five couples attended the euchre party and dance given by the Wedgewood club, of Brooklyn, December 15th. The reception hall of the Kaiser Haus was tastefully decorated for the occasion, and from a social point of view the affair was a decided success. There were six prizes for the card games. After the euchre, dancing was enjoyed until the early morning hours.

The committee on arrangements is receiving commendation for the pleasing manner in which the guests were entertained.

J. E. Boyle, of Fairfield, Conn., has been elected a justice of the peace. The newspapers have it that he is offering inducements in the way of automobile transportation, flowers, and candy to the patrons of his nuptial bureau.

W. W. Albers, of Wausau, Wis., a former president of the Wisconsin Pharmaceutical Association, now represents his district, the twenty-fifth, in the State senate.

Canadian Association.

The third annual meeting of the Canadian Pharmaceutical Association was held at Halifax in September, last. President Henry Watters, of Ottawa, Ont., in his address recommended better instruction for apprentices and better recognition for pharmacists in the government service.

Among the speakers were Prof. J. P. Remington, of Philadelphia, Pa., and J. E. Tremble, of Montreal.

Officers for the coming year were elected as follows: President, Robert Martin, of Regina, Sask.; vice-president, J. E. Tremble, of Montreal; and secretary and treasurer, G. E. Gibbard, of Toronto.

The 1911 meeting of the association will be held at Montreal.

Minneapolis Druggists' Banquet.

The annual banquet of the Minneapolis Retail Druggists' Association was held November 16th. Covers were laid for sixty, and C. H. Huhn presided as toastmaster.

The speechmaking was largely given up to the discussion of national legislation needed in pharmacy.

Prof. F. J. Wulling was the principal speaker of the evening and he argued particularly the need of patent laws that would protect not only the pharmacists but the people also, against the high prices exacted by foreign manufacturers of protected pharmaceuticals and chemicals. He compared the prices of several of these preparations in this country with the prices charged abroad, and said that this country gave more protection than any other to its patent-holders. In Germany, he said, the process of manufacture alone is patentable. He referred to the defeat of the Mann bill and quoted from THE DRUGGISTS CIRCULAR the sentiments of the pharmacists at large on the matter in question. Prof. Wulling advocated a change in the law which was provided for in the Mann bill and was to the effect that no patent should be granted upon products, but only processes; that no patent should be granted upon any invention or discovery which has been patented in any foreign country more than a year; and that when a patent is granted upon a process and the patentee does not manufacture such a substance within two years in the United States then any citizen may do so, or may import and sell it without interference.

Prof. Wulling spoke in favor of the establishment of a national bureau of health, but did not favor a department with a cabinet officer at its head.

He believed that the objections to a parcels post which pharmacists in general had might possibly be obviated if the delivery of parcels were confined to routes originating in the towns and going direct to rural consumers.

Among the guests and other speakers were United States Senator Moses Clapp, of St. Paul; G. H. Goodrich, of Anoka; State Senator McCall, of St. Paul; J. P. Jelinek, of St. Paul, president of the Minnesota Pharmaceutical Association and recently elected to the State legislature; and Messrs. Heller, Rietzke, and Aberwald, of the board of pharmacy.

Connecticut Clerks Organize.

After a lapse of about fifteen years the drug clerks of Hartford, Conn., have again become active in an organized effort to better themselves. The new organization, the Hartford Licensed Drug Clerks' Association purposes to furnish for its members social diversions and educational opportunities through lectures.

The officers are: President, J. J. Keefe; vice-president, L. H. Tracey; financial secretary, J. De Leo; recording secretary, C. S. Sheldrick; treasurer, Frank Tierney; board of governors, J. Foster, J. W. Ghent, Alexander Thompson, F. W. Dunn, James Lynch, and Richard Heffers.

Announcement has been made at Washington of the engagement of Dr. Harvey W. Wiley, chief of the bureau of chemistry of the department of agriculture, and Miss Anna C. Kelton, daughter of the late Adjt.-Gen. John C. Kelton, U. S. A. Miss Kelton has been quite active as a "suffragette."

Hynson, Westcott & Co., of Baltimore, have opened a new store at the junction of Linden and North avenues. This it is said is a new departure in drug store equipment for that section of the city, the interior being fitted largely in metal and stone. W. N. Owings, a member of the company, will be in charge.

New Year Reflections.

By ERNEST CRIPPS.

All business men agree as to the necessity of ascertaining the state of their finances and stock at some given date in the year, but not so many will admit the equal importance of an overhauling of the principles and methods upon which their business is conducted.

The end of one year, or the beginning of a new one, is not a bad time to undertake such a subjective stock-taking, and a short time may be profitably spent in thinking over some of the items on the balance sheet.

ATTENTION TO DETAILS.

How do we regard as pharmacists such an important item as attention to small details, for instance?

Most of us are keen on the bigger and more expensive lines we handle, but we are not always so careful in the smaller and possibly less profitable ones. We would not think of allowing a bottle of medicine to leave our pharmacies carelessly wrapped or finished off, but often think nothing of sticking one label over another, or allowing a dirty label to pass.

We think these things do not matter, or are unnoticed by our customers, but in this we are mistaken. Any ideas our customers may have about us have been slowly but surely formed by reason of these very omissions or commissions on our part, and they are all the stronger because they have been developed sub-consciously.

We cannot be too particular about small details; even if our businesses are thriving or our bank balances rising. The worm-eaten cork that breaks when a little pressure is brought to bear upon it, the piece of straw in the liquid we sell, the dirty window or case, the want of personal neatness or cleanliness on our own part; all these are noticed unerringly by our customers and are seed which will invariably in days to come result in a harvest that may give us a good deal of trouble.

A bottle carelessly labeled may stand on the mantle-piece of a cottage for years and proclaim to all those who see it that the pharmacist whose name it bears was lacking in neatness and a sense of proportion. It may have contained only a cheap tincture, but it is as powerful a weapon against him as though it had been filled with otto of rose.

QUALITY ABOVE ALL THINGS.

Then, too, how about a motto, "Quality above all things?" Are we as particular in this matter as we were when first we entered business? We are keen buyers, we would strive manfully to save a few cents per pound on our purchases, and in this we are right, provided we do not sacrifice the quality of the things we sell. And we must be persistent in looking out for quality, for one lapse on our part may undo the work of years. It is possible to buy compound licorice powder at ridiculously low prices, and we may be tempted to do so, thinking thereby we are saving. But in the long run it is the greatest folly, for we are supplying our customers with a preparation which they will find unsatisfactory, and our good name will suffer thereby.

One of the most honored of British pharmacists was asked the cause of his business success, and his reply, terse and to the point, was "I have always sold the best, irrespective of price."

The writer happened to be on a visit a few weeks ago to a small country town. There were several drug stores located there, creations of polished mahogany, plate glass and electric light. He asked to be taken to the principal pharmacy and was led down a back street to a small old-fashioned shop, of a style more than a quarter of a century old.

"This is where the medical men send their patients," said my guide.

"But why?" I asked.

"Because here they are always certain of getting the best drugs."

The moral is obvious.

INVIOABILITY OF A PROMISE.

And what about being men of our word? There is no finer trait of character than this in the moral world and it is equally true that in the business world the true and lasting successes have always been men of their word.

"I know you will send it, Mr. So and So," says a customer, "for you have never deceived me yet."

This testimony to our fulfillment of promises is surely

gratifying. Let us see to it that in the future we do not forfeit it.

If we have promised any article by a certain time we should make most strenuous efforts to obtain it, even although we suffer a financial loss thereby.

A story is told of the founder of one of the biggest retail businesses in Great Britain, that he once promised some goods by a certain time and found, when too late, that he had promised what he could not perform if he depended upon ordinary methods of transit. He was not to be beaten, however, for a special train was chartered and his contract faithfully carried out.

We can not all imitate his method, but we can all share his spirit.

MORE THAN MERE MONEY IN THE BUSINESS.

And another thought needs emphasizing, that is, that we should not be too grasping. True we are not in business for philanthropy—we "are out to make money"—but we can do this in a dignified and gentlemanly manner, and if possible, we should give customers the idea that we have a genuine and sincere interest in them and their wants, quite apart from any question of what Carlyle, in his grim way, once called a "cash nexus." Let them feel that they can come into our pharmacies to ask us questions and to get their wants supplied, but that we shall not press them to purchase articles they do not want, and even if they go away empty handed, having purchased nothing, we shall not be offended.

"I shan't go to Jones again," said a young woman, "he is always trying to sell me some things I don't want."

We must not be too harsh on Jones, for he, good man, was only doing what he thought best for himself and his family; but he was rather too insistent and so lost a customer.

We should always endeavor to satisfy our customers, although we may lose on some particular line or article. I recall that tooth brushes are occasionally brought back after a few days' wear with the complaint that the "bristles fall out." I always cheerfully exchange these, although it is quite possible that I may not get the same treatment from the manufacturer or wholesaler.

Sometimes there is a dispute concerning change or payment, the customer stating that she has paid more than she really has. It is better in such cases to concede the point, even if the pharmacist is certain he is in the right. A dissatisfied woman can do incalculable harm to a business, out of all proportion to the sum of money that caused her dissatisfaction.

RESTING ON OARS.

And finally, all readers who are in possession of thriving businesses should avoid resting on their oars. The man who is making his reputation has no time for this, but with success often comes lessening of endeavor. In business, as in morals, there is no standing still. If we are not pushing on, we are drifting back, and the business that stands still has commenced to degenerate.

Pharmacy is not played out, either in the old world or the new. Its roots are deep in the past, its fruitage is yet to be. And the man who engages in it, in the spirit of the ideas I have herein suggested, is on the road to success in a material sense, and will also have the satisfaction of knowing that he has handed on to his successor ideals which have stood and which will stand the only true test, the test of time.

The Johnston Pharmacy at Bucyrus, Ohio, has recently been entirely remodelled and is now resplendent in plate glass, electric lights and a harmony of colors. The Bucyrus local papers characterized as a most remarkable engineering feat the lowering of the floor sixteen inches without disturbing the stock or fixtures. The store is conducted by F. T. Johnston & Son.

Co-operative advertising is being used by the Chicago Retail Druggists' Association in an endeavor to stem the flow of business from the neighborhood drug store to the drug department of the department store. Copy is being used in the daily papers to set forth the advantages of dealing with the druggist who has a personal interest in his customers.

Walter S. Martin, of Hickory, N. C., has purchased the store of S. H. McNeely, of Canton. Mr. Martin will shortly move this store to new quarters being prepared for him. When stocked completely the store, it is said, will represent an investment of \$8,000.

Some Phases of Eastside Pharmacy.

Manhattan's east side has developed in the past decade an institution common in Oriental lands—the peddling herbalist. Of an evening, in the path of the home-returning throngs from the sweateries lining Broadway and adjoining streets one may see dozens of the itinerant drug sellers, each with a tray suspended from a neck-strap, using a pushcart. They peddle a couple of dozen or more herbal products, as for example, cassia fruit, chamomile flowers, sarsaparilla root, and peruvian bark, as well as cough lozenges, plasters and other simple remedies, and perhaps a few essential oils. For a long time these pedlers served also as an outlet for the surreptitious sale of cocaine. Maybe some of them do so still to a small extent, but the stringency of latter-day laws to prevent the sale of the "dope" has made them wary.

Of course the operations of dozens and scores of these perambulating drug-venders seriously affects the trade of the legitimate pharmacist. His sales of herbs, for instance, where he is in direct competition with the pedler, are almost nil. Here is the pedler retailing on a license—even if he has that—which costs him two or three dollars a year; while he has scant or no knowledge of the virtues and dangers of the drugs he sells, the pharmacist in a store, who may have spent almost a competence on his education, who has devoted years of arduous study to his chosen calling and has invested his all in his place of business, finds himself in recent years face to face with the serious menace of the curbstone drug retailer. And, as the regular pharmacist has learned to his discomfort, the competition problem is getting more and more keen, year by year, with the entry of more and more peddling pharmacists on the sidewalks. And the rivalry between the pedlers themselves for the 1, 2, and 3-cent sales is acute to a degree. Few persons are going to enter a drug store, to pay the minimum "nickel" or dime for an article, when they can get something which will take its place from the pedler outside for a couple of cents.

The drug pedler has no responsibility. In case attempt be made to arrest him for the inadvertent poisoning of a family, probably no sleuth could locate him—there are so many of them, and they are always on the shift. Even if the one wanted were located it would be almost impossible to establish his responsibility or prove he sold the drug which caused the trouble. On the other hand the legitimate pharmacist is always where he may be found, and as a matter of fact is often blackmailed by tricksters who threaten him with a suit for alleged damages.

Of all pharmacists in Manhattan, where the struggle of druggists for existence is naturally hard owing to legitimate competition, probably those on the east side have to face conditions worse than are to be found in any other section of the city. The fiercest of fierce competition is apparent there, regardless of the pedler-druggist factor. From time to time one may see a pharmacist and his stock-in-trade sold by a sheriff's officer. Such a sale is the drug pedlers' golden opportunity. They swarm around the auctioneer's desk like roaches in a pie-bakery. Valuable lots of merchandise go for next to nothing. In fact, the auction is often considered not worth while by the owners—so little is realized. For who (except a pedler) wants second-hand or stock-soiled or nobody-knows-how-old lots of drugs and sundries?

A couple of years ago the stock of one of the more important east side pharmacies was literally dumped out pell-mell on to the sidewalk. There was nobody to look after the effects. For the rest of the day groups of boys went through the different drawers and containers, looting them of all things tasting sweet, cramming their pockets with licorice, lozenges, jujubes, pastilles, and anything else resembling "candy"; and throwing back with evident disgust anything not tasting good. What internal troubles—if any—ever came to those youngsters thus partaking indiscriminately of pharmacists' candy-ware may be surmized. However, probably at the worst it only meant a few extra stomachaches. Later on the city dump-cart men treated the remnants of this pharmacy as a public obstruction, what no passerby had thought worth picking up going to the public limbo.

The corporation of Hegeman & Co., of this city, has appealed from the decree of the United States district court ordering it to carry out an agreement to purchase the Forty-second street store of J. Jungemann. (See last month's CIRCULAR, page 663.)

A. Ph. A. Officers Elected.

General Secretary Charles Caspari, Jr., of the American Pharmaceutical Association has announced the result of the balloting by mail for the officers who will serve the association during the year 1911-12. The selections are as follows:

President, J. G. Godding, of Boston; vice-presidents, Wilhelm Bodemann, of Chicago; C. M. Ford, of Denver; and Ernest Berger, of Tampa, Fla.; members of the council, E. G. Eberle, of Dallas, Tex.; J. M. Good, of St. Louis, Mo.; and G. F. Payne, of Atlanta, Ga.

The ballots numbered 1238, of which 225 were rejected in accordance with the resolution which was adopted at the last annual meeting that only such votes should be counted as were cast by dues-paid members. Eleven unsigned ballots also were not admitted.

The board of canvassers, C. B. Whilden, F. T. Green, and J. L. White, reported a total number of 1002 votes, of which six unmarked ballots and one written ballot were not allowed. These could not have made a material difference in the result. The vote in detail follows:

For president, J. G. Godding, 635; F. C. Godbold, 162; T. Ashby Miller, 98.

For first vice-president, Wilhelm Bodeman, 516; W. A. Frost, 252; G. C. Blakeley, 118.

For second vice-president, C. M. Ford, 406; F. W. Meissner, Jr., 302; F. A. Hubbard, 177.

For third vice-president, Ernest Berger, 387; Charles Holzhauer, 304; J. O. Burge, 191.

For members of the council (three to be elected), E. G. Eberle, 624; J. M. Good, 500; G. F. Payne, 322; Otto Raubenheimer, 308; E. H. Ladish, 260; A. M. Roehrig, 214; T. D. Wetterstroem, 176; E. C. Bent, 128; and Mathias Noll, 99.

Meetings of American Pharmaceutical Association Branches.

Nashville.—Official formulas formed the topic of discussion at the November meeting of the Nashville branch of the American Pharmaceutical Association, syrup of tolu, essence of pepsin, elixir of the phosphates of iron, quinine and strychnine, and elixir of terpin hydrate with heroine being the preparations dealt with.

J. O. Burge said that he had found kieselguhr an excellent filtering agent in making syrup of tolu. He uses half as much as the specified amount of magnesium carbonate, and gets a clear water-white syrup having a better flavor.

A sample of essence of pepsin exhibited by W. R. White had been made with a white sour wine detannated with milk. It had a very attractive appearance.

A number of those present discussed the question of making a satisfactory elixir of the phosphates. Mr. Burge got a better green color by omitting the ammonia water. R. L. Eves found that the darkening of this preparation was prevented by keeping it in a blue-glass bottle.

All of those present had been troubled by the sugaring-out of elixir of terpin hydrate with heroine. Mr. Burge suggested the following improved formula:

Terpin hydrate.....	265 grains.
Heroine hydrochloride.....	11 grains.
Alcohol	12 ounces.
Glycerin	12 ounces.
Syrup of wild cherry....	enough to make 32 ounces.

He dissolved the terpin hydrate in 8 ounces of alcohol; heats the glycerin to fuming; adds the remainder of the alcohol to this [probably losing much of the alcohol], and adds the solution of terpin hydrate gradually with shaking. In this mixture he dissolves the heroine, and adds the syrup when the mixture has cooled.

At the December meeting of this branch Prof. W. L. Dudley gave a lecture on "Radium, and Neon and Other Rare Gases." He told first of Ramsey's discovery of the rare gases in the atmosphere, and gave a somewhat detailed description of xenon, neon, argon, and krypton. He also told of the separation of helium by Hildebrandt and described this gas. Prof. Dudley thought neon might be used to make wireless waves visible.

The speaker related the history of radium and told how it was produced from uranium, and how in turn the radium was slowly broken up into its components. He described its physiological effects as similar to that of Roentgen rays. The beta rays of the radium emanation he said resembled electricity in a number of ways.

Adjournment was taken after the close of Prof. Dudley's lecture.

New York.—Practically the entire time of the meeting of the New York branch of the American Pharmaceutical Association held December 12th was devoted to the reading and discussion of a paper on "Some Difficulties Encountered in Complying with U. S. P. Requirements," which was presented by B. L. Murray. This was in the nature of a criticism of the indefiniteness and abstruseness of some of the official descriptions, and was not to any extent a condemnation of official standards.

He criticised the lack of descriptions of the powdered form of acacia, ammonium carbonate, cloves, and other botanical drugs. He also criticized the failure to recognize any but the large crystals of copper sulphate and the stick form of calcium chloride.

He also thought that in several instances—citing veratrine—the melting point was too definitely stated, and in others the same was true of the official figures for specific gravity—among these he mentioned benzaldehyde. The official solubility figures he considered wrong in many instances. Another fault instanced by the speaker was the failure to describe methods by which chemicals might be compared with official standards.

Mr. Murray argued that it was a waste of space to devote long monographs to the description of crude materials used almost entirely in the arts and seldom, if ever, used in their natural condition as medicaments. Among these substances he named metallic iron, mercury, animal charcoal, and zinc.

Prof. Virgil Coblenz, who opened the discussion of Mr. Murray's paper, thought that the revisers of the U. S. P. had acted logically in describing ammonium carbonate as they did and also in calling attention to its change to a powdered, deteriorated state. In determining which physical form of a substance would be recognized, he said that the revision committee had been obliged to decide arbitrarily sometimes. The official solubility figures, he stated, were obtained from manufacturers, their determination being too much for the committee in the time at its command. The committee had believed that the various analytical methods for medicinal chemicals were so well known as not to require repetition in the Pharmacopœia, but in the next revision these methods will be referred to by name. In his opinion, while a number of articles should be deleted from the official list, iron, zinc and mercury should be retained because they enter into so many medicinal compounds.

T. N. Dissosway also thought that there should be an official description of mercury because it is used as such in mercurial mass and in mercury with chalk. He did not consider official descriptions of powdered substances necessary.

Albert Plaut was of the opinion that there was need for improvement in the descriptions of botanical drugs. He favored the deletion of the monographs on crude materials and the description of each in connection with one compound into which it entered. The one-time difficulties in connection with the determination of melting points, he said, do not now exist because the revision committee is being assisted by all the laboratories of the country. He remarked that the food and drugs officials took cognizance of the fact that substances used in the arts need not comply with standards for medicinal grades of the same substances.

Cornelius DeJonge told of the difficulty experienced in obtaining scammony of the origin denoted in the Pharmacopœia, and of securing a stable lithium bromide complying with the official standard.

J. L. Lascoff thought that warning notes should be given in the U. S. P., such as a caution against accelerating the toxic action of oleoresin of aspidium [which has caused blindness] by combining it with an oil that dissolves the flicic acid.

J. L. Mayer expressed the desire that the Hehner method of ascertaining the iodine number of oils would be specified in place of the Hübl, and that a definite statement be made as to whether the determination of physical constants should be made with samples of chemicals as found in the market or with dried samples.

Otto Raubenheimer said that the pharmacopœial descriptions should be more definite, and that full attention should be given to powdered drugs. His hope was that the crude materials would be retained as at present. However, he wished to see a return to a standard temperature

for specific gravity determinations of 15° C. because of the difficulty of obtaining apparatus standardized at 25° and of comparing the specific gravities determined at different temperatures.

Joseph Weinstein was an advocate of animal charcoal, because he often gets prescriptions for it in combination. He favored the recognition of all medicaments, averring that in this way the nostrum maker is handicapped in making extraordinary claims for an unofficial drug.

John Roemer asked that full confidence be reposed in the revision committee.

After officially thanking Mr. Murray, the branch adjourned.

The next meeting, to be held January 9th, will be of a historical character. The paper of the evening will be "The Pharmacist in Ancient and Modern Times," by Dr. James J. Walsh, the dean of the medical school of Fordham University.

Northern Ohio.—The initial meeting of the Northern Ohio branch of the American Pharmaceutical Association for the season of 1910-11 was held at Cleveland, December 9th, with President L. C. Hopp in the chair. A review of some of the year's conventions was presented as follows: The American Pharmaceutical Association, by W. T. Hankey; the United States Pharmacopœial Convention, by L. C. Hopp; the National Association of Retail Druggists, by E. R. Selzer; and the Ohio Pharmaceutical Association, by Joseph Feil.

Secretary H. V. Army referred to some of the proposed changes in the National Formulary; and a general discussion of N. F. formulas and processes followed.

Pittsburg.—A very interesting paper was presented by Louis Emanuel, Jr., at the meeting of the Pittsburg branch of the American Pharmaceutical Association held December 13th. The subject was "A Few Observations Anent Higher Education, or Using One's 'Gray Matter' in Pharmacy."

Mr. Emannel brought out some very pertinent facts relative to what constitutes a really educated and trained pharmacist equal to the various tasks of daily drug-store service. The paper provoked quite an animated discussion. Profs. Koch, Judd, and Saalbach discussed its professional phases; and Andrew Campbell and B. E. Pritchard dwelt upon the commercial topics broached by the author.

Prof. J. A. Koch opened a discussion of matters relating to the revision of the Pharmacopœia, which was markedly instructive.

The branch agreed to a suggestion made by Mr. Campbell that those having knotty pharmacal problems send them to Secretary Pritchard for consideration at the meetings of the branch.

It was also planned to have demonstrations of microscopical examination of powdered drugs and the use of the polariscope at several early meetings.

The meeting concluded with a discussion of the project of a journal for the A. Ph. A.

Washington.—Standards for National Formulary drugs and the general principles involved in the revision of the N. F. formed the topics for discussion at the meeting of the City of Washington branch of the American Pharmaceutical Association.

Dr. L. F. Kebler, who was the first speaker, characterized as impracticable any attempts to provide tests for all possible forms of adulterations, and suggested the desirability of formulating standards of purity and introducing a general provision that would sanction the application of other tests to detect deleterious contaminations. As a general principle, particularly for chemicals, a purity requirement with definite limitations for poisonous contaminations would, in his opinion, perhaps prove most satisfactory.

Dr. V. K. Chestnut believed that there was a need for comprehensive official standards and tests. The economic conditions surrounding the supplying of medicinal substances make it necessary to call in the aid of the botanist, the microscopist, the chemist, and the pharmacologist. He thought that there was an unlimited field for the development of the chemical standardization of drugs.

For crude drugs, said M. I. Wilbert, it might be practicable even at the present time, to fix an equitable minimum limit of purity. Such a requirement could, of course, be established more readily for the more important and more widely used drugs than for drugs that have

but uncertain uses and are, therefore, of variable origin.

The influence of cultivation and transplanting upon wild drug plants was brought out by Dr. H. W. Wiley, who believed that until all drugs that are to be recognized as official are cultivated under conditions that will assure their absolute uniformity it will be necessary to provide for wise toleration and considerable variation in the crude drugs that come to our market.

Prof. H. E. Kalusowski said that the cultivation of medicinal plants appeared to have a tendency to increase the relative proportion of the active constituents, and referred to the improvements that have been made in connection with cinchona bark and the development of various hybrid forms containing either quinine or other alkaloids in excess.

Dr. M. G. Motter called attention to the desirability of materially changing the scope of the two books now recognized as the standards for drugs under the federal food and drugs act. The Pharmacopœia, he said, might well become the book of standards for recognized standard remedies, while, for insertion in the National Formulary, it might be found practicable to develop standards for all other drugs that are widely used regardless of the recognition that is given to them by laboratory workers and teachers.

In answer to an inquiry by one of the members it was announced that the American Pharmaceutical Association had definitely decided to include in the National Formulary formulas for all widely used preparations not included in the Pharmacopœia, and had also decided to provide standards for non-pharmacopœial drugs and chemical substances used in these several formulas.

The report of the special committee appointed at the October meeting to consider the project of a journal of the American Pharmaceutical Association was read by the secretary and unanimously adopted.

Embodied in this report were the following resolutions in memory of Prof. C. S. N. Hallberg:

Whereas, we, the members of the City of Washington Branch of the American Pharmaceutical Association, having learned of the death of C. S. N. Hallberg, a prominent member, and editor of the Bulletin, of our association, are desirous of expressing our appreciation of his long-continued and unselfish interest in everything pertaining to the advancement of the American Pharmaceutical Association and the progress of true pharmacy generally, now, therefore, be it

Resolved, That we hereby record our appreciation of his unflinching and untiring devotion to pharmacy, his singleness of purpose and the unquestioned probity which guided his every-day effort in securing for true pharmacy the recognition properly due it; and

Resolved, That a copy of these resolutions be embodied in our minutes and a copy forwarded to the family of the deceased as an expression of our sympathy and esteem.

The annual election of officers resulted in the choice of the following: President, Dr. Reid Hunt; vice-presidents, Lewis Flemer, Dr. L. F. Kebler, and A. C. Taylor; secretary, M. I. Wilbert; treasurer, W. H. Bradbury; committee chairmen: Membership, H. C. Easterday; legislation, W. S. Richardson; medical relations, F. C. Henry; and publicity, S. L. Hilton.

Romance is not dead—at least among drug clerks—and the newspaper writers of this city found a theme worthy of column articles in the honeymoon spent recently in a cave in the Catskill Mountains by a twenty-year old drug clerk, of Newark, N. J., and a nineteen-year old patroness of the soda fountain, who had eloped from forbidding parents. Cold weather and a scarcity of game brought about the abandonment of the cave-dwellers' life, an arrest for vagrancy, and a subsequent return to the conventionalities of civilization.

Shortly after the resumption of the sittings of the United States supreme court, January 3d, the case of the Miles Medical Company against the John D. Park & Sons Company will, it is expected, come up for hearing. This case, as has been reported on several occasions in the CIRCULAR, has to do with the legality of price-protection plans and the influence thereupon of unsubstantiated claims of remedial virtues for nostrums.

The Fortune-Ward Drug Company, of Memphis, Tenn., expressed its appreciation of the patronage extended to it by the medical profession during 1910 in a letter of greeting sent to the physicians of the city at Christmas time.

The new quarters of the New Orleans College of Pharmacy were formally opened with a reception by the board of trustees and faculty, November 29th.

News of the Pharmacy Boards.

List of Board Secretaries.

In the following list are to be found the names and addresses of the secretaries of the various boards of pharmacy of the country. When the date and place of the next meeting of a board are known they are given also.

Secretaries are requested to keep us informed as to dates and places.

ALABAMA—February 15th, at Montgomery. E. P. Galt, Selma.

ARIZONA—April 12th, at Phoenix. A. G. Hulett, Phoenix.

ARKANSAS—J. F. Dowdy, Little Rock.

CALIFORNIA—January 10th, at Los Angeles, and January 15th, at San Francisco. Louis Zeh, San Francisco.

COLORADO—S. L. Bresler, Denver.

CONNECTICUT—March 7th, at Hartford. J. A. Levery, Bridgeport.

DELAWARE—January 5th, at Newark. Albert Dougherty, Wilmington.

DISTRICT OF COLUMBIA—January 12th and 13th, at Washington. S. L. Hilton, Washington.

FLORIDA—January 23d, at St. Augustine. D. W. Ramsaur, Palatka.

GEORGIA—C. D. Jordan, Monticello.

IDAHO—April 11th, at Idaho Falls. J. M. Starrh, Shoshone.

ILLINOIS—F. C. Dodds, Springfield.

INDIANA—January 10th, at Indianapolis. W. H. Rudder, Salem.

IOWA—February 7th, at Des Moines. E. J. Moore, Des Moines.

KANSAS—February 15th, at Wichita. W. E. Sherriff, Ellsworth.

KENTUCKY—January 10th and 11th, at Covington. J. W. Gayle, Frankfort.

LOUISIANA—F. A. Earhart, New Orleans.

MAINE—F. H. Wilson, Brunswick.

MARYLAND—April 12th and 13th, at Baltimore. Ephraim Bacon, Roland Park.

MASSACHUSETTS—Every Tuesday between September 1st and July 1st, at Boston. P. J. McCormick, Boston.

MICHIGAN—January 17th to 19th, at Ann Arbor. E. J. Rogers, Port Huron.

MINNESOTA—January 16th, at Minneapolis. C. T. Heller, St. Paul.

MISSISSIPPI—April 4th, at Jackson. L. H. Wilkinson, Greenwood.

MISSOURI—January 9th, at Jefferson City. C. E. Zinn, Kansas City.

MONTANA—T. M. Kehoe, Billings.

NEBRASKA—February 7th to 9th, at Omaha. A. V. Pease, Fairbury.

NEVADA—R. L. Prouty, Tonopah.

NEW HAMPSHIRE—January 18th, at Concord. F. H. Wingate, Nashua.

NEW JERSEY—January 19th, at Trenton. H. A. Jorden, Bridgeton.

NEW MEXICO—A. J. Fisher, Santa Fe.

NEW YORK—February 1st and 2d, at New York, Albany and Buffalo. W. L. Bradt, Albany.

NORTH CAROLINA—F. W. Hancock, Oxford.

NORTH DAKOTA—March 21st, at Fargo. W. S. Parker, Lisbon.

OHIO—January 10th and 11th, at Columbus. F. H. Frost, Columbus.

OKLAHOMA—January 10th and 11th, at Oklahoma City. J. C. Burton, Stroud.

OREGON—December 13th and 14th, at Portland. C. G. Huntley, Oregon City.

PENNSYLVANIA—February 18th, at Harrisburg. L. L. Walton, Williamsport.

RHODE ISLAND—February 7th, at Providence. J. E. Brennan, Pawtucket.

SOUTH CAROLINA—March 15th, at Charleston. F. M. Smith, Charleston.

SOUTH DAKOTA—January 18th and 19th, at Pierre. E. C. Bent, Dell Rapids.

TENNESSEE—January 17th, at Nashville. I. B. Clark, Nashville.

TEXAS—January 17th, at Dallas. R. H. Walker, Gonzales.

UTAH—January 17th and 18th, at Salt Lake City. W. H. Dayton, Salt Lake.

VERMONT—January 3d, at Montpelier. D. F. Davis, Barre.

VIRGINIA—January 3d, at Richmond. T. A. Miller, Richmond.

WASHINGTON—P. Jensen, Tacoma.

WEST VIRGINIA—May 5th and 6th, at Wheeling. A. Walker, Sutton.

WISCONSIN—January 10th and 11th, at Madison. Edward Williams, Madison.

WYOMING—C. B. Gunnell, Evanston.

Alabama Board.

Twenty-three years is a long term of office, and at the October meeting of the Alabama Board of Pharmacy, E. P. Galt, of Selma, was elected secretary for the twenty-third time. The other members of the board are W. E. Bingham, of Tuscaloosa, president; L. C. Lewis, of Tuskogee, treasurer; S. A. Williams, of Troy; and W. A. Thomason, of Guntersville.

The next meeting of the board will be held at Montgomery, February 15th.

Kansas Board.

One hundred and thirty-one merchants' licenses were granted by the Kansas Board of Pharmacy during the quarter ending November 16th; eight pharmacists were restored to registration; two received temporary certificates and one was granted a duplicate certificate.

The following graduates of recognized schools of pharmacy were registered without examination:

K. L. Hersh, of Wamego; and L. C. Runyon, of Lawrence.

There were thirty-eight applicants for registration, and of this number the following were successful:

J. C. Beaver, of Hewins; Pearl H. Brown, of Kansas City; Josephine Burke, of Scammon; E. A. Crawford, of Pittsburg; W. A. De Lapp, of Weir; A. M. Drees, of Kansas City; C. W. Evans-Lombe, of Edna; G. C. Fuller, of Hoisington; Sister Mary E. Hackett, of Pittsburg; B. D. Harrison, of Atchison; G. T. Howe, of Belleville; M. J. Kane, of Scammon; M. F. Reagan, of Leavenworth; L. J. Supple, of Solomon; S. E. Thomas, of Kansas City; W. H. Varnum, of Lawrence; J. T. Wills, of Pittsburg; C. C. Worley, of Kansas City; and H. C. Wrench, of Beloit.

The next meeting of the board will be held at Wichita, February 15th.

Massachusetts Board.

At the two examinations conducted by the Massachusetts Board of Pharmacy at Boston, during the month of November, the following candidates for registration were successful:

As pharmacists—W. B. Burke, of Lowell; D. F. Callahan, of Woburn; E. A. Johnson, of Chelsea; Mary D. Lang, of Lowell; W. J. Murray, of Natick; Mark Shaw, of Lynn; J. H. Tancrede, of Holyoke; and A. L. Walsh, of New Bedford.

As assistants—C. W. Ashley, of Attleboro; C. B. Carlsen, of New Bedford; B. P. Keyes, of Swampscott; L. F. Kilham, of Beverly; J. I. Lawlor, of Lawrence; T. J. Mullarkey, of Haverhill; Daniel Reidy, Jr., of East Weymouth; and S. J. Smith, of Lawrence.

At a meeting of the board held December 6th officers were elected for the ensuing year as follows: President, E. O. Engstrom, of Pittsfield; and secretary, P. J. McCormick, of Cambridge.

December 7th, A. J. Brunelle, of Fall River, was appointed by Governor Draper to succeed C. F. Ripley, of Taunton, whose term of office expired this year. Under the law members of the board may not be reappointed to succeed themselves.

Nebraska Board.

Seventeen of the twenty-eight applicants for registration were successful at the meeting of the Nebraska Board of Pharmacy held November 9th, at Lincoln. They were:

Mary Boler, of Omaha; R. J. Brown, of Scottsbluffs; E. M. Chamberlann, of Council Bluffs, Iowa; A. J. Farnham, of North Bend; Ernest Jensen, of Emerson; D. M. Kelam, of Franklin; J. P. Kent, of Sioux City, Iowa; C. M. Krebs, of Albion; D. J. Ledwich, of Broken Bow; C. A. McCarthy, of Omaha; L. E. McGee, of Nelson; O. L. Martellar, of Wilcox; H. L. Paden, of McCook; M. C. Ritter, of Omaha; A. J. Robertson, of North Bend; R. E. Roche, of Kimball, and T. C. Ross, of Omaha.

At this meeting of the board it was announced that J. E. Harper, of Clearwater, took his place as a member of the board to fill the vacancy caused by the retirement of C. R. Sherman, of Omaha. Officers were elected as fol-

lows: President, A. V. Pease, of Fairbury; vice-presidents, Herbert Locke, of Central City; and J. E. Harper, of Clearwater; treasurer, D. J. Killen, of Adams; and secretary, Frank Koss, of Fremont.

In conjunction with this meeting there was held a reunion of the ex-members of the board, and a banquet was given to the members and their wives. The present board presented to its retiring president, C. R. Sherman, a large leather chair as evidence of its esteem.

The ex-members formed an "old guard" and elected officers as follows: President, D. J. Fink, of Holdrege; and secretary, H. L. Harper, of Beatrice.

The board will hold its next meeting for the examination of candidates February 7th to 9th, at Omaha.

North Carolina Board.

Out of a class of fifty-nine thirty-seven succeeded in passing the examinations conducted by the North Carolina Board of Pharmacy at the meeting held November 15th at Raleigh. The names of the successful ones follow:

T. J. Aiken, of Raleigh; O. T. Alexander, of Charlotte; S. A. Chalk, of Edenton; W. B. Cherry, of Winston-Salem; C. B. Clark, of Durham; H. M. Cole, of Carthage; Henry Coleman, of Chapel Hill; Carl Finger, of Stanley; W. S. Frieze, of Concord; C. I. Godwin, of Pine Level; L. I. Grantham, of Dunn; L. E. Hesterly, of Hendersonville; J. B. Jones, of Fair Bluff; Agnes H. McDonald, of West Durham; W. F. Matthews, of Siler City; J. E. Murry, of Durham; C. B. Phillips, of Lincolnton; H. C. Reece, of Raleigh; Z. B. Rucker, of Charlotte; W. M. Sally, of Statesville; E. G. Scott, of Spray; C. N. Smith, of Southern Pines; J. H. Stimson, of Statesville; H. R. Stowe, of Belmont; K. N. Summey, of Dallas; D. G. Taylor, of Leaksville; E. N. Tillett, of Durham; G. S. White, of High Point; A. H. Williams, of Oxford; H. W. Wohlford, of Charlotte; and I. L. Zuckerman, of Durham.

Pennsylvania Board.

At the November examinations conducted by the Pennsylvania Board of Pharmacy at Philadelphia and Pittsburg, the following applicants for registration were successful:

As pharmacists—N. H. Anthony, L. F. Flinkman, C. R. Getz, P. C. Hill-Webb, G. B. Hulick, W. W. Keys, W. E. Klopp, M. L. Mallas, John Shober, and A. F. Stedem, all of Philadelphia; A. H. Hollstein, James McClaren, Fred Reif, L. M. Shear, Joel Sissman and C. E. Snyder, all of Pittsburg; R. L. Houck, of Purchase Line; R. H. Hutzler, of Butler; C. R. Johnson, of Scranton; H. W. Kintner, of Easton; A. J. Owen, of Erie; Christopher Schuehle, Jr., of Williamsport; E. K. Stratton, of Salem, N. J.; J. S. Sutton, of Butler; Frank Taylor, of Canonsburg; F. A. Treichler, of Norristown; J. C. Wajert, of Heidelberg; and Harry Weis, of Scranton.

As assistants—H. L. Adams, R. L. Bellenglin, Oscar Briskin, R. L. Butler, H. W. Cole, Emanuel Cooper, A. R. Crouse, R. F. Fischelis, H. B. Ford, W. G. Fleckinger, J. H. Geiger, Robert Gracey, Leo Greenstein, Max Keiser, Isador Klebanoff, M. S. Knauf, Isador Lehrman, Rebecca Levy, J. M. Miller, E. A. Mullen, Mabel Nelson, W. J. Oakes, G. M. Peberdy, Louis Poulshock, S. P. Reimann, A. L. Scilipoti, B. H. Shubert, Benjamin Shur, and Arthur Swanbach, all of Philadelphia; H. J. Brandt, J. F. Christley, C. R. Joliff, W. H. McDonnell, and F. H. Masterson, all of Pittsburg; E. M. Baker, of Ingraham; Malcolm Beach, of Cynwyd; Walter Bixler, of Homestead; Charles Brown, of Reading; R. G. Buckalew, of Bloomsburg; A. R. Calkins, of Wilkes-Barre; P. S. Cutter, of Burlington, N. J.; R. W. Downs, of Sunbury, D. E. Edwards, of Johnstown; N. M. Elsby, of Scranton; C. T. Gilbert, of Danbury, Conn.; C. F. Griffiths, of Beverly, N. J.; J. L. Grimm, Jr., of Wilmerding; Frank Hasenflug, of Lakewood, N. J.; E. F. Henning, of Baltimore, Md.; B. M. Hicks, of Benwick; W. F. Hitzelberger, of Bala; E. J. Hughes, of Wilkes-Barre; H. A. Jenks, of Findlay, Ohio; O. E. Johnson, of Erwin; F. H. Jolley, of Franklin; S. A. Kern, of Schenckville; H. J. Koch, of Coopersburg; A. J. Kossler, of Crafton; K. A. Krayner, of Columbiana, Ohio; B. C. Leemhuis, of North East; P. L. Leidich, of Harrisburg; H. M. Long, of Lewes, Del.; A. W. McGuire, of Pleasantville; J. A. Moon, of Athens; W. V. Moyer, of Bloomsburg; C. V. Pease, of Coatesville; R. E. Phillips, of Lewistown; H. L. Poffenberger, of Lydia, Md.; W. H. Puterbaugh, of Carrick; A. R. Sasse, of Kansas City, Mo.; I. S. Shaffer, of Somerset; C. M. Shull, of East Downingtown; R. A. Smith, of Beth-

Iehem; E. C. Snyder, of Yoe; W. G. Stauffer, of New Holland; J. S. Tyson, of East Downingtown; G. L. Watts, of Middletown, N. Y.; F. H. Weaver, of Baltimore, Md.; H. P. West, of Sistersville, W. Va.; C. J. Wisor, of Punxsutawney; and G. F. Young, of Dravosburg.

The next meeting of the board will be held at Harrisburg, February 18th.

Rhode Island Board.

But six candidates succeeded in passing the examinations concluded by the Rhode Island Board of Pharmacy, December 6th, at Providence. Their names follow:

P. H. Brady, J. S. Darcy, Arthur Girard, J. P. Head, J. E. Matteson, and J. H. Young.

South Carolina Board.

At the meeting of the South Carolina Board of Pharmacy held November 16th, at Charlestown, the following candidates for registration were successful:

R. L. Burnett, of Columbia; R. C. Davenport, of Ellenton; V. H. Gregory, of Clio; J. M. Horton, of Belton; J. P. Key, of Union; L. J. Nettles, of Harvin; D. F. Sanders, of Timmonsville; and C. L. Thomas, of Sharon.

The next meeting of the board will be held at Charleston, March 15th.

New England Association of Pharmacy Boards.

The annual meeting of the New England Association of Boards of Pharmacy was held at Boston, November 28th. The States represented were Connecticut, Maine, Massachusetts, New Hampshire, and Vermont.

Officers were elected as follows: President, J. R. Leverty, of Connecticut; vice-president, D. F. Davis, of Vermont; and secretary and treasurer, F. W. Bucknam, of Maine.

British Physicians Would Restrict the Sale of Nostrums.

Nostrums came in for a good share of condemnation in the reports on hygienic and medical economies recently collected by the British privy council from the medical officers of local boards of health. Opiate teething powders and soothing syrups for children were particularly condemned.

Some of the suggestions for remedying conditions were the following:

To compel the statement of the composition of all advertised medicaments.

To oblige venders of nostrums to pay for the analysis of their wares by the government analysts.

To prohibit the sale of headache powders and the like.

To regulate the sale of infant foods.

In the annual report of the federal bureau of fisheries to the department of commerce and labor the sponge-protecting act of 1906 is declared to be futile. This act does not prohibit the wanton devastation of sponge beds but seeks to prevent it by prohibiting the sale of sponges of less than a specified diameter. This process has not been found practicable because the bureau has no machinery for the enforcement of the law. The commissioner asks that the defects be remedied and also that the taking of sponges less than 5 inches in diameter be declared illegal.

It is reported that a Parisian publisher will shortly issue a Poliglota Vade-Mecum de Internacia Farmacio to contain (1) the weights and measures, monetary tables, and specific gravity factors of the various countries; (2) comparative tables of the galenicals given in different pharmacopœias; (3) formulas for unofficial medicines; and (4) a vocabulary in nine languages, English, French, German, Spanish, Dutch, Italian, Russian, Swedish, and Esperanto.

The German imperial commission, which has for two years been conducting an inquiry into the possible connection between the Carlsbad mineral springs and the coal mines at Falkenau, has decided that the application of the Britannia mines to be allowed to continue the pumping of waste water should be refused on the ground that the springs might suffer as a consequence of the pumping.

"Jobber," writing to the *Oil, Paint and Drug Reporter*, of this city, wants a "pure food and drugs" law for sponges. He thinks that it is time to call a halt on the "trade custom" of weighing in four or five pounds of bur-lap, shells, rope, etc., with each 25-pound bale of sponges.

Obituaries.

LOUIS DOHME.

One of the master minds of pharmacy was stilled when, on December 12th, Louis Dohme, of Baltimore, breathed his last. Mr. Dohme had been ill for a number of weeks, and so it can not be said that his death was unexpected, yet the news of the end came as a shock to his family, his friends and the trade generally. The attack of neuritis which marked the beginning of his end occurred in October while he was on the Atlantic bound for home. After treatment in New York he was taken to a hospital in Baltimore, where in spite of the best skill and attention he gradually sank.

The deceased was born July 6th, 1837, at Obernkirchen, Germany. With his parents and several brothers and a sister, he came to America at the age of fifteen, landing at Baltimore where he became acquainted with the late Alpheus P. Sharp, who at that time conducted a pharmacy at the corner of Howard and Pratt streets, that is on the exact site of the present extensive laboratories of Sharp & Dohme. Mr. Dohme even at that early age had a pronounced liking for the drug business and he therefore



LOUIS DOHME.

accepted the position of assistant offered to him by Mr. Sharp, and thus began the association which eventually developed into the foundation of one of the most widely known firms of manufacturing pharmacists in this country. Mr. Dohme studied pharmacy in all its practical details under the skilled tutelage of Mr. Sharp, and after attending the prescribed course of lectures at the Maryland College of Pharmacy was graduated by that institution in 1857.

Four years after his graduation Mr. Dohme became a partner of his old preceptor, the firm of Sharp & Dohme having been formed in 1860, and his business foresight was such that he soon began to enlarge the store's manufacturing laboratory and offer its output to other druggists. His younger brother, Charles E., having also been graduated by the Maryland College of Pharmacy, later became a partner in the business, which continued to expand. Louis Dohme, manifesting a preference for the business side of the undertaking, went out to put the products of the firm on the market. For a time he was the only salesman so engaged. He showed extraordinary ability, backed by indefatigable industry. With rugged strength and a determination to achieve he combined an ingratiating manner which instantly gained him a hearing. Mr. Sharp retired from active business in 1885, and in 1892 the firm became a company, with Louis Dohme as president, a position he held until his death. He was an organizer of

splendid ability, having had unerring judgment in the selection of the right men for assistants.

Of late Mr. Dohme had been less active in the business management of his company, poor health compelling him to spend much time in rest and at European resorts. His extensive travels, wide reading, and natural taste and inclination made him an unusually broad-minded and well-informed man. His private library was large and showed a discriminating taste, and his love of the best in music induced him to become a liberal patron of that art. He also possessed a good knowledge of paintings and sculpture, and was in all respects an entertaining and highly intelligent associate, in addition to being a sincere friend and a most delightful and warm-hearted companion. While Mr. Dohme was not a man who sought the lighter side of social life, he held membership in the Germania Club of Baltimore, the most exclusive organization among the Germans of that city, where he came in close contact with the most cultured of those who, like himself, had come from the Fatherland. He was also a member of the Baltimore Country Club.

In 1875 Mr. Dohme was elected president of the Maryland College of Pharmacy, which position he held until 1890, when he was succeeded by his brother, Charles E. Dohme, who remained at the head of the institution until its absorption by the University of Maryland. He was a life member of the American Pharmaceutical Association, having joined that organization in 1859, when it was only seven years old. He was a member of the United States Pharmacopoeial conventions of 1880 and 1890, and a member of the committee of revision of the convention of 1880, in which position his careful and accurate work proved of much value. Mr. Dohme was also one of the three members of the first board of pharmacy created by the laws of Maryland, which had jurisdiction in the city of Baltimore only. The deceased was a bachelor and made his home with his brother, Charles E. Dohme. He is survived by two brothers and a sister, besides six nephews and the same number of nieces. His funeral, held December 15th, was largely attended, the Department of Pharmacy of the University of Maryland having been represented by nearly all its faculty. The honorary pallbearers were Henry G. Hilken, Ernest Schmeisser, Carl Ruhstrat, H. B. Gilpin, Dr. John F. Hancock, G. Frank Baily, John C. Muth, George Bucheister, John Hinrichs, John H. Winkelmann, Prof. Charles Caspari, Jr., and Judge George M. Sharp, the latter a son of the late A. P. Sharp, the old employer and partner of the deceased.

NEWLANDS HAYES.

Newlands Hayes, of Detroit, founder of the *Retail Druggist*, died November 19th, 1910, aged sixty-five years. He was born at Pickering, Ont., and came to the United States in 1883, where he engaged in the retail drug business until about fifteen years ago.

In the days of the old Interstate Retail Druggists' League, one of the various forerunners of the National Association of Retail Druggists, Mr. Hayes worked diligently to have the druggists adopt a "plan" advanced by him to prevent the cutting of prices. This plan included the purchase of stock in the Universal Trade Association and was not endorsed by the league.

The following are the recently reported deaths of other persons in the pharmaceutical world:

WILLIAM W. BARTLETT, of Roxbury, Mass., December 1st, aged sixty-four years.

MELVIN E. CORNWALL, of Theresa, N. Y., aged seventy-eight years.

JOSEPH F. DIGNAM, November 24th, at Manchester, N. H., aged forty-seven years.

LEON C. FINCK, at Detroit, Mich., November 25th, aged fifty years.

AUGUST FRANCK, aged seventy-two years, at Chicago.

ROSENDO G. GONZALES, of San Antonio, Texas.

ROBERT S. GRANT, of Norfolk, Va.

EDWIN W. GRAVES, aged seventy-five years, of this city, December 6th.

C. H. HARVEY, aged forty-five years, of Lancaster, Mass.

Dr. W. J. HEADRICK, of Logansport, La., November 2d.

WILLIAM F. HEAGNEY, aged forty-four years, of Salem, Mass.

Dr. W. A. KNAPP, of Lake Charles, La.

WILLIAM LORENTZ, aged forty-nine, of Milwaukee, Wis.

WILLIAM G. MORRIS, aged seventy-two, of Chicago.

CARL OVERMEYER, December 7th, at Brooklyn, N. Y.

SMITH W. PERRY, of Jamaica Plains, Mass., at Lynn, Mass., November 3d.

WILLIAM REYNOLDS, of Bristol, Conn., aged sixty-eight years.

EDGAR SWADLEY, of Wabash, Ind., aged fifty-two years.

GEORGE TICHNOR, aged fifty-nine years, at St. Paul, Minn., November 24th.

W. H. VINCENT, at Polo, Mo., aged seventy-five years.

J. H. VON STEIN, of Columbus, Ohio, November 14th. He was one of the founders of the Ohio Pharmaceutical Association and for eighteen years its treasurer.

DAVID C. WEAVER, of Ft. Worth, Texas, November 6th, aged forty-five years.

J. LEROY WEBBER, of Brooklyn, N. Y., aged fifty-seven years, November 25th.

ROMANTA WELLS, aged seventy-six years, at Chicago.

Hugh Craig, a member of the staff of the CIRCULAR, and secretary of the New York branch of the American Pharmaceutical Association, was called to his old home at Hollidaysburg, Pa., during the holidays, by the death of his father on Christmas day. He has the sympathy of many friends.

According to a statement issued by the National Association for the Prevention of Tuberculosis, the sum of \$15,000,000 is collected annually from tuberculosis sufferers by those who exploit and advertise "fake" consumption cures. For this vast sum, the report says, the victims receive nothing in return, but are often permanently injured, even in many cases being deprived of the chance of being benefited by proper treatment. The association has recently issued a pamphlet of directions for living and sleeping in the open air, which may be obtained upon of his father. He has the sympathy of many friends.

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Now Blood in the A. Ph. A.

Almost anything may be "proven" by statistics. If it is desired to show that the American Pharmaceutical Association is a sturdy, vigorous, growing body it is necessary only to point to the fact that its increase in membership during the past decade has been nearly one hundred per cent. On the other hand, should anyone desire to establish a contention that it is a weak, puny thing with barely enough life to keep it going he could call statistics to his aid and say that although the association will enter upon its sixtieth year during the current twelvemonth, its membership roll shows the names of less than two-and-a-half thousand, out of many more than a hundred thousand eligibles.

No matter from which point of view its friends look upon the association, all must admit that there is room for its growth and development, and that such growth and development is desirable. Taking the pessimistic view for a while, just for the sake of argument, we may say that the patient is anemic—that it needs more blood. The way to introduce this blood is by adding members to the association as fast as it can assimilate them, and to add the members—ah, there's the rub! All sorts of means looking to this end have been tried, and prizes have been offered and won for papers setting forth the best reasons for pharmacists to identify themselves with the body. Efforts in the direction of increasing the membership have borne fruit, but not enough, and much of it has dropped off the tree before it was mature.

And now comes a man who, whether or not he is a doctor of pharmacy, may at least lay claim to the title we have conferred upon him of being a doctor of pharmacists, and says that the American Pharmaceutical Association is in bad shape. He undertakes to diagnose the trouble of the patient, and seemingly having done so to his own satisfaction, proceeds to offer an antitoxin for each toxin found in the sick body's cosmos—an antidote for each poison discovered. Even though there may be friends and advisers of the association who do not agree with this doctor, and so decline to administer his remedies, all must admit that he is a man of keen discernment and has shown much ingenuity in his analysis of the situation. This fact alone entitles his suggestions to a respectful hearing, and we feel certain that they will have at least that, and maybe more.

Speaking for ourselves we may say that while we agree with some things said in this doctor's report of a very interesting case, there are others in it with

which we are not in thorough accord. For instance, take what he says about the lack of recognition of young men by the association in the matter of offices. Let us do a little analyzing on our own account: Some of the officers of the association are elected in one way and some in another; the president, three vice-presidents, and three members of the council each year, are elected by ballots sent by mail. Each member of the association receives a ballot bearing the names of three nominees for each position to be filled, and the ballot is to be marked and returned by mail. No one but himself knows, not even the tellers, the names of the nominees for whom any member casts his vote. But who does the nominating? This is done by a committee made up of two members from each State—assuming that there are as many as two members from each State in attendance at the annual meeting—chosen by a caucus of all the members from that State in attendance. If only one member from a State is at the meeting, then he represents the State on the nominating committee; if no member is present from a State, then that State is not represented on the committee. Then the president appoints five members of the committee "at large." In the committee each member has an equal voice and vote. The so-called permanent officers of the association, that is to say the secretary, the treasurer, and the reporter on the progress of pharmacy, are elected by the council. The council, in turn, is composed of the officers of the association, nine members nominated and elected as has just been described (three each year, and no man eligible to succeed himself), the chairman of the various sections of the association, elected by popular vote of all the members present at the section meeting at the time of the election, and representatives of the various branches, chosen by the members of these branches. The editor of the *Bulletin* and the local secretary are ex-officio members of the council. All members of the council also have an equal voice and vote.

Usually the president of the association, as is fitting, is one of the older and more distinguished members; and the same may be said, with slight qualification, of the vice-presidents. The three members of the council elected each year usually are men who have shown particular zeal in, and knowledge of, the association's work, regardless of whether they are wholesalers, retailers, professors, manufacturers, or editors. Section officers are chosen on account of their supposed special qualification for the work which will devolve upon them, and frequently are young men and

new members; the same may be said of the members of the council chosen by the local branches.

To leave generalities and get down to a few instances, we may say that William L. Cliffe, of Philadelphia, was elected first vice-president of the association just four years after becoming a member; and Albert M. Roehrig, of Buffalo, was elected second vice-president when he had been a member only one year. Among those who have filled the office of third vice-president, Miss Josie Wanous, of Minneapolis, was elected after a membership extending over only one year; Henry Willis, of Quebec, when he was called upon to fill that office had been a member just five years; Otto F. Claus, of St. Louis, two years; and Oscar W. Bethea, of Meridian, Miss., five years. William C. Anderson, of Brooklyn, had been a member of the association only two years when he was elected secretary of its commercial section; Robert C. Reilly, of St. Louis, holds a similar record; Herman D. Knisely, of Checotah, Okla., was made secretary of this section the year he joined, and the chairman (and therefore a member of the council) the next year; Charles H. Avery, of Chicago, was elected secretary of the commercial section the year after he joined; George O. Young, of Buckhannon, W. Va., the same year he joined; Jacob Diner, of New York, was made its chairman after a year's membership; Eric H. Ladish, of Chicago, became the section's secretary three years after joining the association, and declined the office of chairman the next year, whereupon Waldo M. Bowman, of Toledo, who had joined the same year that Mr. Ladish did, was elected.

In the scientific section Charles E. Caspari, of St. Louis, was elected chairman just three years after joining the association; Reid Hunt, of Washington, was elected to the same office after two years' membership, and Albert H. Clark, of Chicago, became its secretary four years after joining the association, and its chairman the following year. A brief consideration of the records of the section on practical pharmacy and dispensing shows a few interesting facts: William Kaemmerer, a drug clerk, of Columbus, was elected secretary of the section two years after joining; William H. Burke, of Grand Rapids, Mich. (since deceased), was made secretary of the section the same year he joined, and its chairman the following year; William C. Kirchgessner, also of Grand Rapids, and also a drug clerk at the time, we believe, was made secretary of the section the next year after joining the association; H. A. B. Dunning, of Baltimore, another clerk, had been a member three years when he was elected secretary of the section, and four years when he became its chairman. Joseph Weinstein, of New York, was chosen as secretary after one year's membership, and was re-elected the next year; while Franklin M. Apple, of Philadelphia, had joined the association only two years prior to his election to the chairmanship of the section.

These are just a few figures, hurriedly compiled for use here from records made during the past ten or a dozen years; doubtless a careful review of the history of the association would discover as many more

equally striking ones. The young man who joins the American Pharmaceutical Association, attends its meetings, and demonstrates that he has ideas and energy, will soon receive all the recognition he could possibly have cause to expect. Incidentally, we may add that we believe a majority of the rank and file who attend the meetings do so because they wish to mingle with kindred spirits, and for the pleasure of seeing and hearing what is going on, and with no desire whatever to stand in the limelight.

With this we shall for the present leave the statement of the case as made by the diagnostician, without further attempt at adding to or detracting from its force, but will say in conclusion that the situation in the American Pharmaceutical Association at the present time is an interesting one, and likely to prove more so rather than the reverse as the months roll by. This very fact shows that new ideas have been injected and that new blood is at work. If the suggestions of our esteemed contributor, the "doctor of pharmacists," succeed in bringing still further new ideas—and more new blood—to the association, they will not have been offered in vain.

Clerks and Proprietors.

Very few druggists are now alive and in business who were proprietors of drug stores when the AMERICAN DRUGGISTS' CIRCULAR AND CHEMICAL GAZETTE was first issued over fifty-four years ago. Most of those who were in business in 1857 have been succeeded by their clerks, many of which latter have in turn been succeeded by *their* clerks. Probably a majority of the proprietors of drug stores in the United States to-day have been clerks at sometime within the past quarter of a century. If the CIRCULAR's attitude toward the clerks were not a friendly one, and if clerks were so unfriendly to the CIRCULAR that they could not be won over after they became proprietors, what should we do for subscribers? If there were no better reason for it than the instinct of self-preservation, the CIRCULAR would be friendly to the clerks. It expects to be in business twenty-five years from now, and to have as its chief supporters then the young men who are clerks to-day, together with many who will grow up to be clerks and, later, proprietors, during the intervening years. The interests of drug clerks and the interests of proprietors of drug stores are so nearly identical that a trained analyst, though in him are combined all the knowledge of the chemist, the skill of the microscopist, and the ability of the histologist, can not put his finger on a point and say that here those of the one cease and those of the other begin. There is no such point. We might go further and declare with but little if any exaggeration that there is no point covered by the interests of the proprietor which is not covered by the interest of the clerk, and vice versa.

Disregarding these facts or being unmindful of them, clerks now and then write to us in a complaining spirit and say that we do not give them as much attention as they deserve. In order to refute such a charge made a few years ago we went through our

files and picked out some of the things we had then recently printed from and for clerks, and so large a list did it make that we jokingly said that we hesitated to call attention to it for fear of arousing the jealousy or antagonism of the proprietors.

No one can read the CIRCULAR with any degree of care or regularity and not see that a great deal that it contains is intended to appeal, and doubtless does appeal, in an especial manner to the younger and less experienced men in the business, among whom, of course, the clerks form by far the larger part. Not only this, but much space is devoted to a discussion of the condition of employes, a large part of which is filled with communications from these employes. Of course we do not always agree with our drug-clerk friends who write us letters for publication, but this is only natural: we do not agree with all that the proprietors say in our correspondence columns. We are willing to give both sides of any question we discuss, however, and so print what proprietors and clerks have to say, and now and then point out something in their statements which is not in accordance with our understanding of the matter in hand, and give our reason for dissenting from the expressed view. For instance, in this issue is a letter from a clerk in which he complains that street railway employes receive better wages than drug clerks. The answer to this is obvious, and we make it: if you would rather be a street railway employe than a drug clerk there is nothing to prevent you from making the change. The drug clerk gets something in addition to his mere per diem that the street railway man does not receive. We do not intend by this answer to cut the clerk off short or to make him feel that he has not our good will. On the contrary, we like to hear from clerks and they most assuredly have our good will. We wish especially that more letters would come to us from cheerful clerks, such letters, for instance, as the one from Mr. Wray published last month. It is characteristic of man (and even the lower animals), however, that they are generally not spurred to take unusual action, to make a demonstration, except as an indication of trouble, pain, discontent or something else of a disagreeable nature. It is not the clerks with good positions, reasonable hours, adequate salaries, "easy bosses," good prospects of advancement, and all those things, that write most of the letters to the papers. A large part of the correspondence from clerks comes from those who have a real or fancied grievance to air. It does them good to air the grievance, it is well for proprietors to be reminded of it when there is cause for discontent among their clerks, and by discussion many of the ills of pharmacists may be obviated or eradicated. The better the position of clerks, the fewer clerks will want to become proprietors; while, on the other hand, the employer who treats his clerks as slaves will soon see them opening more stores in a neighborhood in which he doubtless thinks competition is quite keen enough already. As we have already said, the interests of the clerks and of the proprietors are almost identical; both are for pharmacy, and both are for improved business conditions. So are we.

The Ivory-Headed Public.

In their ability to resist the letting in of information concerning matters of health, the heads of a remarkably large portion of the general public seem to be made of solid ivory, bone or wood.

After all that has been said about the value of fresh air and exercise, and about the harmfulness of too much and improper eating and all "doping," and about the poisonousness of morphine-containing soothing syrup and acetanilide-laden headache remedies, what is the net result? We challenge any man to walk along the streets of the resident sections of his city late at night or early in the morning when the temperature is as low as sixty degrees, count the number of bed-room windows that he finds open and say that he needed more than his ten fingers to keep tabs on the count. See the people who, being neither tired nor pressed for time, start on a trip of half-a-dozen blocks, and board a street car with its beery, garlicky and cheesy air and no ventilation. Patronize the restaurants and hotel dining rooms and note how men stuff their stomachs as full as they will hold with all kinds of unmasticated food, making it go down with ice-water, coffee, beer or wine, instead of the natural digestive fluids of the mouth. The places patronized by the rich and presumably better-educated are not much if any better—maybe worse—in this respect than the cheaper grade of eating houses. The amount of coca and kola, cocaine and caffeine (or things which are intended to replace these), and other deleterious drugs consumed in the shape of soft drinks, by men, women and children in this country is simply appalling. Notwithstanding the vigorous campaign of education conducted by magazine writers, public officials, and some of the medical and pharmaceutical journals and daily newspapers, babies all over the land are daily drugged into insensibility through the administration of morphine in some thinly disguised form, by tired mothers and impatient nurses, just as they were before the campaign began, although, let us believe, less numerous. Occasionally the services of the coroner are necessitated by this method of quieting crying infants, but the lesson the inquest teaches seems soon to be lost upon the comparatively few whom it reaches. Let anyone who reads these lines have his wife or daughter or a woman acquaintance go into a company of her friends and complain of having a splitting headache, and see how quickly one or more of them will recommend the use of some acetanilide mixture—perhaps produce a powder or a cachet from her handbag or bureau drawer.

"Ah," says the maker of the headache remedy, or the narcotizing syrup, or the fountain "dope," "you are simply proving the innocuousness of our product, for if it were as harmful as you say, the public as a whole would have found it out." Has the public, as a whole, "found out" about the harmfulness of sleeping in closed rooms, about the suicidal effect of bolting unmasticated foods, about the value of open-air exercise and deep breathing, about scores of other things which have penetrated heads not composed

essentially of bone and something resembling scrambled eggs?

That man had the right idea who said that the public was like a herd of stampeding cattle prevented from going over a precipice by a few strong men who held a rope stretched near its brink. Let all druggists resolve to be rope holders in future.

IF ALL THIS INTERFERENCE WITH BUSINESS conditions goes on, what will become of us? Here we have officials condemning powdered drugs because they are loaded with pulverized nut shells, and there we see some inspector pouring cans of milk into the sewer simply because they contain an excess of perfectly wholesome water or even a little thing like a few drops of a solution of formaldehyde. We pick up the daily paper and find sandwiched between an account of a burglary and a report of political grafting, a dispatch to the effect that hundreds of thousands of boxes of sardines have been found unfit for food and condemned. Nobody's goods seem to be safe in these parlous times. Even the shoemakers are "catching it" for loading their leather with glucose so that it will make heavy and good-looking soles. Of course the glucose will dissolve as soon as it gets wet, but why should the maker worry about that? His goods sell better if they look all right, and he is in business to sell goods. But the disturbers of commercial interests are saying that there ought to be some way to compel him to make them of good leather; or, if he cannot afford that, then to let the poor leather he uses pass for what it is and not for something else. We turn over the paper and on the other side read that tons and tons of tomato paste used in making soup has been found to contain two thousand million-unhealthful bacteria—count 'em, two thousand million—to the teaspoonful, and was destroyed by United States marshals. Think of it; in this land of the free and home of the brave a minion of the law confiscating property worth large money and belonging to citizens who, because they have made enough to enable them to clothe and house themselves and families in fine style, are rated as highly respectable. The next item in the newspaper is headed "\$1,000,000 Sugar Fraud," and tells how the grand jury at New Orleans is directing its efforts and calling the attention of the vulgar public to some of the means by which their wealthy and high-toned neighbors are adding to their fortunes. If this kind of thing is not stopped soon there is no telling who will be safe. "But the ultimate consumer," someone says, "and the small dealer; how about them?" Oh, piffle; what good are these except to buy the products whose sale so helps to swell the dividends of the adulterators, misbranders, and other kinds of swindlers? The public be—excuse us; a little bit more and we should have written something that might still further have wounded the delicate sensibilities of those who are already much annoyed by things that are happening.

MEMORY OF PECULIARITIES of people is valuable to the salesman, just as memory of the names and faces is to those who would gain their favor. When a man went to Washington in the old days and approached Henry Clay with the salutation, "You don't know me, Senator, but I had the pleasure of hearing you speak at Jonesville six years ago and feel that I know you," that astute politician would at once recall the time he

spoke at Jonesville, inquire about some of its leading citizens by name, ask his caller in what part of the town he lived and maybe describe some of the houses on the street mentioned or ask whether his residence was on the hill beyond the branch [brook] or nearer the business center of the town. When that traveler got back to Jonesville he was a Henry Clay supporter, and when he told the leading citizens how the great man had asked about them, they, too, no matter what their politics, were sure to lean toward him more than before. Good memory is a valuable asset for a merchant as well as for a politician. The salesman who casually remarks to Mrs. Scads that a new lot of perfumery has just arrived, and unostentatiously shows her a bottle, remarking at the time that it is her favorite odor, is likely to make a good impression by the delicate flattery of remembering her taste. If he sells books or magazines it pleases his customers to have him say that "there is a new story out by So-and-So, whose style you seem to like." Discriminating young women soon acquire a preference for a certain brand of cold cream or a special variety of candy, and soda-water drinkers are likely to call for the same drink repeatedly. When waiting on customers with established preferences it pays the clerk to be able to ask, "The same?" and produce the desired article without waiting for detailed descriptions. There is a large amount of psychology in salesmanship, and the better this fact is understood by the salesman and the more adept he is in its practice, the more successful he is sure to be. Memory for peculiarities is a strong lever for the salesman who wants to be psychologist.

COMPARING A SICK MAN TO A YARD in which a lot of he cats are making discordant noises (possibly with that portion of their interior economy destined to serve as strings for a bass viol), requires a considerable stretch of the imagination, but the imagination having once been so stretched as to make the comparison, an analogy may be established in a number of ways. For instance, in the yard o' cats there is a disturbance, as there is in the sick man. In this manifestation—either one—the neighbors take an interest. They go further: they offer remedies for its abatement. One sets his mind to wishing for a surcease of the disturbance, and maybe it surceases—or doesn't. Another throws small spitballs into the yard or sugar pellets into the man, with results as noted under the preceding head. A more vigorous-minded citizen hurls spoiled potatoes, brickbats, old bottles, or whatever else comes handy, into the yard, or grandmother remedies, horse boluses, headache wafers, "patent" medicines and the like unto the corpus of the human sufferer, the result in each case being that the arena of action is littered up and put into a dangerous condition, and made unfit for ordinary use, while the disturbance merely stops long enough to shift from one corner of the scene to another and then breaks forth again with renewed violence. The real remedy is to refer the case to the legally constituted authorities who have made a study of similar ones and are prepared to treat them scientifically—who are licensed either to kill the cause of the trouble or to enter upon the premises and remove this cause by more or less gentle means.

DISPENSING BY PHYSICIANS is a matter which is attracting more and more attention from pharmacists, and a very good pharmaceutical friend of ours in a personal letter to us on another subject has taken oc-

casion to say that he does not agree with what we have said on the subject. We are open to conviction, and if we ever see any feasible way in addition to the one we have suggested, to cause physicians to write prescriptions for pharmacists to fill, instead of dispensing the indicated remedy themselves, we shall most assuredly advocate that way. A good prescription trade is the most profitable thing about a drug store, and if such a thing were practicable, we should be glad to have pharmacists dispense all medicines used. But we do not expect to see, and in our present frame of mind can not conscientiously advocate, such a seeming absurdity as a law prohibiting the physician from administering to his patient any medicine which in his opinion the patient needs, and administering it when and where and how his judgment dictates. If it were possible to put such a law on the books and a reputable physician were arrested for disregarding it, his simple statement that he had acted in the interest of suffering humanity would doubtless be enough to secure his discharge by any court. In case of sickness the judgment of the physician is one from which there is no appeal; and the fact that the medical profession harbors some ignorant and vicious men does not change this condition, and should not; and we may well leave it to the medical profession to do what it can to rid itself of its own "undesirables." In the meantime, physicians are writing many prescriptions, and these, naturally, they prefer should be filled by those men who have demonstrated their ability to fill them in the best style of the art pharmaceutic, and their willingness to leave the treatment of the sick to those who are prepared to undertake it.

TELEPHONING PRESCRIPTIONS is a modern practice, one which has come into vogue within the experience of comparatively young men; but already its displacement by something more in keeping with twentieth-century progress is threatened. The press dispatches a few weeks ago contained an account of a sea captain who was taken sick while on the deep, with no doctor aboard. He sent a home-made diagnosis of his trouble by wireless, and a ship's surgeon nearly a thousand miles away caught the message and "wirelessed" back a prescription and direction for treatment. The necessary medicines were aboard the sick captain's vessel, and, according to the story, he was soon himself again.

DRUGGISTS MAY SUPPLY MORPHINE and other habit-forming drugs to habitués, and unquestionably many of them do, but we have yet to hear of an instance of a druggist urging or enforcing the use of such things upon anyone: this is done by the peripatetic venders of the "red-light" and "tenderloin" districts on the one hand, and by practicing physicians on the other. Dr. H. W. Wiley, of Washington, has recently given utterance to a few remarks on this phase of a subject that is much-discussed just now, which remarks are quoted in our news columns this month.

TO HELP THE GET-TOGETHER MOVEMENT on the part of boards of pharmacy and State pharmaceutical associations, a uniform size for the annual reports and proceedings of these bodies would be a step in the right direction. Most of them are nearly uniform in size now, and it would work no hardship on anybody to make all of them quite so.

The True Story of a Make-Believe Editor.

An editor once fell sick, as even editors are human—sometimes—and subject to human ills. But that was no excuse for the paper not to come out, so it continued to appear. A man who was busy at another job collected material to go into the paper. Being busy at this other job, the "relief" editor did not have time to write original articles, but still he knew that his readers expected something of this kind. So what did he do? Guess. Did he buy original articles of those who had them to sell? He did not. Did he hire somebody to write them for him? Guess again. Well, what *did* he do? Sh-h-h—he clipped them from other papers. Now what do you think of that!

But that isn't all. The editor of one of the papers from which clippings were made and printed without credit wrote to the make-believe editor and asked him what he meant. And for once the editor did not say it was the printer's fault for leaving the credit line off and would not happen again, but he actually told just what we have here repeated, and stated that he did not propose to stop. He said that he simply had to do it. You see he was not a real editor but only a make-believe. All of which happened—so there!"

Eyestrain.

Stephenson (*The Lancet*) says that whenever a headache, migraine, vertigo, or "tic" is induced or made worse by use of the eyes and relieved by rest, one may safely assume it is due to eyestrain. Slight errors of refraction are most likely to cause distress in persons who have inherited or acquired an unstable nervous system. Headache is the commonest reflex manifestation of eyestrain. Of all errors of refraction, slight grades of hyperopia, and particularly of hyperopic astigmatism, are those most likely to cause distress. A large error of refraction, leads, as a rule, to defective sight and not to eyestrain. Among the symptoms or conditions that may result from eyestrain, the author mentions, besides headache, insomnia, migraine, vertigo, functional neuroses, such as habit-spasm, and polyuria, epilepsy, and phobias. Many other conditions have been assigned to the same cause, although not always upon adequate evidence.

A Disguise for Copaiba.

A correspondent of the *Pharmaceutical Journal* says that compound tincture of benzoin almost completely masks the taste and smell of copaiba in the ordinary alkaline mixtures. He avers that he could not detect the presence of the balsam in a mixture containing 3 drams of copaiba and 2 drams of the tincture in 8 ounces.

The true salesman knows and understands his merchandise, whatever the kind. The first-class salesman should be able to answer all ordinary questions of the customer as to quality, place of growth or manufacture, etc. A good drug salesman should be able to point out the good qualities of the various kinds of merchandise that make up the drug stock of to-day.—C. S. Davis, before the Tennessee Pharmaceutical Association.

The law represents that modicum of morality which can be squeezed out of the ruck of mankind; but what is that to me, who aim higher and seek to be my own more stringent judge?—R. L. Stevenson.

The Sick A. Ph. A.—Diagnosis and Treatment.

By a DOCTOR OF PHARMACISTS.

It is only the exceptional man who is willing to work for the good of others unless a good slice of benefit comes home to the worker. It must come to him, too, in palpable form and not as an ideal. I hardly think more than one per cent. of philanthropists, so-called, would keep up their philanthropy for a week if no pleasant returns came to them. This is rule number one.

Human nature is so constructed that some love applause as much as or more than money, while others seek applause because it brings money. If it brings position, business, etc., that is the same as bringing money. A very few love knowledge and will accept that as the equivalent of money. A fair number of pharmacists are well enough off to afford an occasional outing. When they can get that outing at reduced rates, at a time that is convenient to them, and with agreeable people whom they like to meet, that is money to them. This is rule number two.

If any society is to thrive it must supply the conditions of rule number two to a large proportion of the people it seeks to get as members, and if it is to grow it must adopt some method of proving to the people it is interested in that it can and will bring them that which they want. It must advertise its wares among prospective customers and prove itself to be a genuine, simon pure bargain store. This is rule number three.

If a pharmaceutical society seeks to emulate the American Medical Association it must become a means of providing honors and emoluments to its members of as substantial a character as the latter does. The American Medical Association advertises its specialists, supplies honors to its little men, and brings knowledge that no physician can afford to try to do without. It gives them a free weekly journal. This we may call rule number four, but it is in fact part of rule number two.

As pharmacists average no better than other men their society must appeal to their minds as something that will pay and pay substantially. Now what classes of pharmacists does it pay in the manner here indicated? It pays college professors because it advertises their colleges. It pays manufacturers of specialties because it enables them to advertise their wares. It pays pharmaceutical journals because it keeps other journals from getting an advantage over them; their gain is chiefly in preventing disaster to their interests by too active rivals. It pays men who love applause when they happen to be chosen to office. It pays students who are seeking new knowledge, but they are almost a negligible quantity. It pays a few well-to-do pharmacists who can afford an annual outing and who are, through the association, able to get it at a reduced rate. It pays members of boards of pharmacy who are ambitious to be well known and thought well of as workers in the interests of pharmacy.

What classes of pharmacists does it not pay? I might reply to this in a word by including in this category all the rest of the pharmacists of the country. In other words it offers nothing to the rank and file of pharmacists, throughout the country, that can at all tempt them to join. The proof of this is

found in the fact that they do not join and have persistently refused to join for over half a century, and that too in defiance of every inducement that has yet been devised to tempt them to join. They simply remain unconvinced that the association is of any earthly advantage to them. The stay-at-home pharmacists will have nothing to do with it. The rich pharmacists, who prefer touring abroad, are not tempted by it. The poor pharmacists, who have to work and slave all the year round in their dingy stores, have not the time or the money to attend its meetings.

How can it be made to pay more pharmacists than it now does and so tempt an increase in membership? There are a number of ways by which this could be accomplished, but I am afraid those already members are not altruistic enough to make the needed changes. Like every other body, the American Pharmaceutical Association has been going along in the line of least resistance. It is just such a body as its present members are capable of making it. The belling of the cat by the mice was a no more difficult task than the changing of the structure of the American Pharmaceutical Association would be unless some strong, young, and truly unselfish man is willing to take up the task in a diplomatic manner and bring it about by degrees and with the help of the few older men who can see far enough to want the only kind of change that will ever bring in any great increase in membership.

The most important reformation required in the American Pharmaceutical Association is that it shall turn the old fellows out of every office. It should let the tree have freedom to grow. It should make way for the ambitious young. Germ cells are needed at the important points of its development. It should stimulate ambition among young pharmacists by putting every new member who is young immediately into office. But here care must be taken to keep out of office every man whose business interests alone will carry him to the meetings. What is the sense of giving one, two or three positions of honor to a pharmaceutical editor who would be there anyway, and keeping the same from one, two or three lay pharmacists who could be tempted to attend and remain with the society by having an office for a while? Why fill the tempting offices with college professors who would attend without such a temptation, when by so doing we are taking away from the association a means of acquiring members? The pharmacists of the country have come to find out that it would be useless for them to join the association for the sake of honor, as it so seldom comes their way. Occasionally, as a sort of accident, or as a sop, an office is thrown at them. They all know that it is not the order of things for this to occur. Why give offices to the representatives of manufacturing houses who are paid by their employers to be there anyway or who know that attendance there adds permanence to their job? Why not give all offices to retail pharmacists and to no one else? The professors and others, under such a rule, would struggle the harder to get a chance to produce and read interesting papers that would help them in their self advertising. They are now converted into drones, when under a different plan they would be working bees.

The meetings of the association should be held not at expensive resorts, but first in one State and then in another, and so call in the local pharmacists of every

State in the Union. It should go to the State at the time that the State association meets, and at no other time. In this way it would lessen the expense upon the members of the State associations, who instead of having to pay two railway fares and two hotel bills would get off with the payment of only one. Many of them would remain no longer for the one meeting than they would for the two, as their limited means would compel an early return home, but they would all manage to spend a part of their time at each. The double attraction would bring out a much larger attendance at the State meeting. Everybody would get more for his money and every meeting would add a host of new members. At these meetings the publication of the names of the members of the American Pharmaceutical Association who live in the State in which the meeting is held should form a part of the regular association advertising. Many men love to see their names in their local papers, and this sop to vanity would give them just so much more for their money of the very goods they desire. Besides, such publication could be so used as to be of real business value to the members; to let the public know who are the pharmacists who stand for high merit in pharmacy is to advertise the members of the association to their benefit, and such advertising would act as a stimulus to non-members to join.

The American Pharmaceutical Association should assume the function of educating the public to an appreciation of high-grade pharmacy. It should use the local press of the regions it is about to visit in telling some of the things that the association is trying to do for the public. It should show the kinds of men who are backing the association. It should teach the public the advantages of the Pharmacopœia to them and their ailing. It should let the doctors of every region know what pharmacists in their region have subscribed to the ethics of the association and should tell these doctors what these ethics are. It should ask the co-operation of the doctors in getting the pharmacists they patronize to become members of the same, and thus help along their own cause as practitioners. It should tell the doctors some of the things that the association has done for them in the past and some of the things it seeks to do for them in the future. In this way pressure would be brought upon pharmacists everywhere to join as a matter of self interest. The pharmacists should all, likewise, be appealed to to join. They should be shown how their names will appear before the public as high-grade pharmacists. They should be shown that they will be advertised in the same way among the doctors. They should be taught that by keeping out of the association they are advertising themselves to doctors and public as being men who are non-progressive and who cannot possibly give the best service as they do not know the latest and best in pharmacy.

To sum up: Until the American Pharmaceutical Association ceases to cater to the selfish interests of a few and goes in for catering to the selfish interests of the many it cannot hope to grow.

British Borated Talc.

Boric acid.....	100 grammes.
Starch	100 grammes.
Purified talc.....	800 grammes.
Oil of geranium.....	2 c.c. (mils).
Mix well and sift.	

Confidences.

By THE LUBRICATOR.*

I have been requested by the editor of the CIRCULAR to contribute to its pages a "humorous story."

This introduction will be better appreciated when I explain that I am a retail druggist actively engaged in conducting a moderately busy store, with post-office sub-station attachment, assisted by one boy and a negro porter. And not only that, but during the preceding twelve months this joke-smith has had the following incidents trip blithely by close upon one another's heels:

1. The bank wherein lay his trust, together with nearly a thousand dollars of his savings, closed its doors, with no assets.

2. Demand notes for \$1,200 fell due a few days thereafter.

3. When he began to perk up a bit, double pneumonia got a strangle hold on him and the force which ran the store during his seven weeks' absence succeeded with great ingenuity in cutting the daily sales in half.

4. And then he got a brand new clerk, warm from college. This young man had ideas, also prejudices. He set out to teach the poorer customers from the humbler walks of life their proper place; and among other bewildering things, refused to refill prescriptions for cocoa flavored mixtures on account of the cocaine (!) they contained.

Otherwise the writer enjoyed the past year hugely, is glad he is here, and believes the light on the horizon to be the rosy dawn of things pharmaceutical and not the angry red glare of sunset, as it is now the fashion to claim.

Awhile back, the writer, in a modest way, took the world into his confidence and laid the result of his first year's business open to public gaze. And the

*Once upon a time a certain former drug clerk who had gone into business for himself wrote an article which he entitled "A Touch of Lubricant for the Hinges of the Drug Clerk's 'Door of Hope.'" This was published in the CIRCULAR for March, 1909, page 116, and at once created a storm of protest from proprietors who did not want their clerks to go into business in opposition to them. The author of the contribution was read into the "Ananias Club" by several correspondents, and the CIRCULAR was roundly abused for printing false statements which would lure poorly informed young pharmacists to their ruin. Some correspondents were sarcastic, some were sorrowful, some treated the matter as a rather grim joke, and all, or nearly all, seemed to regard as a fabrication the statement of the former clerk that he began business on a capital of \$42 in cash and a plentiful supply of "nerve," and cleared about \$5,000 the first year. Some of the letters evoked, or provoked, by the original publication, appear in the issue of the CIRCULAR for May, page 245; June, page 300; July, page 353; August, page 415; and October, page 530, all for 1909. One journal, even after we had personally vouched for the truthfulness of the author of the communication, had such a poor opinion of us that it charged that the former drug clerk was simply a product of our imagination, and this, notwithstanding the fact that it regards much of our work good enough to "lift" and pass off as its own; a thief trusts few people. But that is another story. We started out to say that "The Lubricator," as he was called, has been heard from again, and here is presented what he says. We repeat what we said a couple of years ago, that the man under discussion was a most unusual clerk, and is a most unusual proprietor. Perhaps not one clerk in a thousand served his employer as well as he did, and probably not one clerk in a thousand would make the success in business for himself that he has made.—Editor THE DRUGGISTS CIRCULAR.

world generally and separately called him a liar. But he wasn't.

Right now there would be another statement, and it would agree very favorably with the first, but for the reasons that have already been enumerated. Suffice it to say, that all current indebtedness has been met, stock in trade materially increased, and outstanding notes have been curtailed over \$1,200.

But it's a windy job, blowing one's own horn.

The drug man, taken as a whole, is a rather decent sort of chap. He enjoys the confidence and respect of his community, and though his gains are not tremendous, he usually makes a decent living for himself and family. And what more is there?

Drug Reform and the A. Ph. A.*

The committee on drug reform of the American Pharmaceutical Association desires to call attention to the circular herewith presented dealing with various phases of needed drug reform. The present committee is a continuation of last year's committee, and is similarly constituted; hence it is scarcely necessary to reiterate that as its function is not executive and scarcely even advisory, it considers that its task may be best accomplished by bringing before the public the results of investigations and indicating possible reforms.

During the last year circulars were issued to the members of the profession, soliciting co-operation, suggestions in regard to the work, and criticism. As the committee now desires to issue another circular preparatory to the work of the present year, it deems it advisable to here emphasize the salient points of the former circulars, and include such additional information and further suggestions as may be offered at this time.

There is need of progress in drug reform in both of two directions; that of better administration of existing federal and State laws, and that of new legislation aimed at abuses not covered by existing statutes. Attention is again called to the fact that the various pure food and drugs acts will not administer themselves. While they have accomplished much good merely by directing public attention to the enormous use of adulterants, they will fail of their true purpose unless the reforms embodied in them can be carried out. Weaknesses of federal administration are in part the result of a division of the responsibilities for the same between two executive departments, and in part the result of insufficiency of appropriations for carrying on the work. It is strongly urged that every effort shall be made to correct this deficiency at once. Former President Rusby, of our association, has repeatedly called attention to the fact that adulterated drugs may be landed at certain United States ports without inspection. This is not due to any fault of federal law, but solely to lack of proper provision for its administration. This is now pretty well corrected.

The causes of weakness in the various State administrations differ widely in the different States. The result of placing such reform in the hands of a department whose purpose is quite foreign, is well shown in the case of North Carolina, where the department of agriculture has done much for the farmers, but little toward securing pure food and drugs. In general, since the federal administration does not reach intrastate commerce, or the manufacture of articles intended for such commerce, the State officials having the work in charge should give more attention to these abuses. That they constitute a vast, profit-

able, and shameless industry, is apparent to anyone connected with the administration of the law. It is very clear that any State whose administration is weak in such respects will surely be the dumping ground for sub-standard materials.

Moreover, there is a great need for more uniform State legislation. As pointed out in a former report, twenty-nine of the States have already passed food and drugs acts closely modeled upon the federal law. Although the committee feels that to draft a model uniform drug law would encroach upon the duties of the committee on national and State legislation, it urges that this be done.

Better administration in both State and nation may also be secured by co-ordination of the boards organized for such purpose. The need is well shown in Dr. Kebler's experience with the Hoboken drug house. If in this case State authorities had been working with federal authorities the offenders would have been promptly brought to justice. The American Pharmaceutical Association should take steps to secure a complete report on the present status of drug legislation and administration, with a view to securing, as far as possible, a better correlation of the forces of administration.

A number of needed reforms fall within the scope of possible legislation. The first of these would require federal enactment. There are certain materials imported primarily for purposes of adulteration, such as ground olive pits and cocoanut shells. Possibly legislation requiring a statement by the importer of the use to which such articles are to be put would lessen or eliminate such importations.

A second needed reform is the restriction and registration of the sale of poisons in various forms by agricultural, hardware, and industrial supply houses. At present large quantities of such substances are sold by untrained dealers for use as disinfectants, insecticides, and industrial agents, without any sort of registration whatever. The Pennsylvania Pharmaceutical Association has prepared a bill to meet this evil.

The need of a better standardization of drugs will doubtless be met in part by the revision of the United States Pharmacopœia now in progress. The committee is facing a number of problems which relate to evasions of the law. One of these relates not so much to the question of the identification of the pure drug, as to that of the detection and identification of all probable adulterants. A proof of adulteration should be established if the drug does not respond to the test of the genuine authentic material. We have in the United States Pharmacopœia what we may term positive tests, which relate to the identification of authentic material. We have also tests that may be characterized as negative tests, showing the presence of that which is not the genuine material. It is our opinion that the positive test should be considered as most conclusive and serviceable, rather than the negative, because if the Pharmacopœia should fail to identify certain possible adulterants, the positive test (the one identifying the pure material), should be sufficient for all practical purposes for the administration of the law.

Merchants are facing the problem of sub-standard material which finds its way into the market. The pepsin test case in Pennsylvania offers an illustration of this condition. The pure food and drugs act drawn by a committee of the State board of health in Maryland would keep all sub-standard goods from being placed on the market unless designated as not for medicine, on the ground that admission of sub-standard materials as medicine emasculates the law. There is no valid reason for a toleration of several standards.

Every agency which can be made to render service in the interest of judicious reform in these matters should be enlisted for that purpose. As suggested in the report, the American Pharmaceutical Association can aid materially by creating a separate division of the scientific section, consisting of all who are interested in drug analysis, to meet on a special day for comparison and discussion. This division would constitute a sort of clearing house for drug analysts and inspectors, who could thus at this time pool their experiences.

While the committee is not regardless of the resolution passed by the American Pharmaceutical Association at its Richmond meeting regarding the dispensing physicians, it does not consider that any report on drug reform would be complete without some mention of the conditions of this branch of the drug traffic. Dispensing doctors are becom-

*This is an open letter to the pharmacists of the United States from the committee on drug reform of the American Pharmaceutical Association, composed of L. E. Sayre, of Lawrence, Kan., chairman; Albert Schneider, of San Francisco, Cal.; and E. V. Howell, of Chapel Hill, N. C.—Editor THE DRUGGISTS CIRCULAR.

ing more numerous, particularly in some portions of the West. The time that the physician in preparation for his calling devotes to an especial study of drugs is limited, amounting in many cases to not more than three or four weeks in toto. The pharmacist spends ten to twenty times as long. Consequently, the physician is not often so well informed on this subject as the pharmacist; in addition, he is generally too busy a man to make a proper examination of the drugs he dispenses. These conditions make him an easy prey for pharmaceutical supply houses seeking to unload adulterated or inferior goods where they will not be subject to inspection. In addition, the dispensing physician is obliged by custom to make no charge, or but slight charge, for his medicine; consequently, he can seldom afford to keep a large stock of drugs on hand, and such as he has are apt to be of an inferior quality. The result is that the patient frequently may be given an adulterated or inferior article, or a substitute for the correct remedy or a smaller quantity than he requires of that which he should have. In addition, these drugs are generally kept and handled in tablet form, making it impossible to vary the dose to suit individual requirements. These are recognized evils attending the custom when the physician is honest and upright; if he chance to be otherwise, we have, in view of the fact that the physician himself prepares the death certificate, all the material for a Swope tragedy. These conditions can be remedied only by legislation bringing the wares of the dispensing physician within the scope of legal inspection, and obliging the physician himself to give proof of pharmaceutical ability. Pharmacists will give all possible encouragement to any step taken in such a direction by the American Medical Association. Honest and competent dispensing physicians will be both willing to demonstrate their competency before boards of pharmacy and to submit their drugs to legal inspection, and glad to lend their aid in any movement tending to establish such legal requirements whether it emanates from the medical or the pharmaceutical body.

It is to be hoped that the foregoing circular will enlist all the members of the American Pharmaceutical Association as well as others who are interested in its work. It is also the desire of the committee that the points considered will be freely criticised. Those who will interest themselves in the work of the committee are expected to send to members of the committee practical suggestions on the lines of drug reform, and thus aid the committee in whatever way they may see proper. It is to be understood that this circular is intended to be suggestive, merely looking forward to a campaign for progressive reform.

Caffeine Beverages Worse than Coffee.

In speaking at a congressional hearing on bills to restrict the interstate traffic in opium and other habit-forming drugs, Dr. William Jay Schieffelin, of New York, president of the National Wholesale Druggists' Association, said:

"Caffeine is the alkaloid in tea or coffee. But when you take it in tea and coffee you take it accompanied by caffe-tannic acid, which goes in with the infusion. After you have had two or three cups your stomach does not crave any more. If you extract the caffeine and mix it with syrup and flavor it like sarsaparilla, say, you can drink six or eight glasses of it, and there is no warning from your stomach, and you are a nervous wreck. That is the danger of the drinks which have had caffeine added to them."

Troches for Hoarseness.

Elm bark in fine powder..... 1 ounce.
Powdered sugar..... 4 ounces.
Oil of anise..... to flavor.

Mix; form a mass with a little tragacanth paste; and make into troches.

A Prayer for Newspaper Men and Writers.*

By WALTER RAUSCHENBUSCH.

O thou great source of truth and knowledge, we remember before thee the writers of books, the newspaper men, and all whose calling it is to gather and winnow facts and to inform the people. Grant them a determined love for honest work and a staunch hatred for the making of lies, lest they pervert the judgments of our nation and teach us to call light darkness and darkness light. Suffer them not to drug the mind of our people with falsehood and prejudice. Since the sanity and wisdom of a nation are in their charge, may they count it shame to set the baser passion of men on fire for the sake of gain.

Grant them boldness to turn the unwelcome light on those who love the darkness because their deeds are evil. Put into their hands the shining sword of truth, and make them worthy sons of the champions of the people in the past who held truth to be a holy thing for which men should die. Make them realize that they have a public function in the commonwealth, and that their country may be saved by their courage and undone by their cowardice and silence.

Grant them the heart of manhood to cast their mighty influence with the forces which make the people strong and free, and if they suffer loss, may they rejoice in that as proof to their own souls that they too have been friends of the common man and servants of the higher law.

"Headache Cures" and the Druggist.

The Northern Ohio Druggists' Association, with headquarters at Cleveland, issues a little leaflet called *Association News*, in the January issue of which the following sensible advice is given to its members and retail druggists generally:

Does it occur to some of our friends who complain of the falling off of their prescription trade, that the lack of medical patronage is largely due to their own fault? This thought is suggested by glances at the display in the windows of many drug stores. It seems as if some druggists consider their show windows as a lumber room in which anybody who comes along can show his window display. Take, for instance, the acetanilide headache "cures." If there is one commodity that the American Medical Association has dinned into the ears of its members as the most dangerous of "patents," it is these self-same acetanilide mixtures, and yet our store windows are fairly yellow with these displays and at the same time naively post on the signs "prescriptions a specialty."

Equally, though less ethically surprising are the displays of articles which any alert pharmacist knows are being widely advertised at ruinous prices.

Yea, verily! the show window is a sadly abused servant! Apropos of the A. M. A. crusade against acetanilide mixtures, every druggist should read the pamphlet gotten out by that influential body entitled, *Propaganda for Reform in Proprietarys*. The pamphlet fairly teems with virility and should be known both by the druggist who loves pharmacy and by the one who considers his calling simply as a business proposition. In fact, it is of more importance to the commercial druggist than it is to the prescriptionist. The secretary has some copies of the pamphlet for those who would like to see it.

To preserve new tinware, says George W. Hague, in *Meyer Brothers Druggist*, rub it with benzoated lard and heat it well before using it. This treatment, he claims, will prevent the tin from rusting, even when it has been put away damp.

*From the *American Magazine*.

Rhizome and Roots of Phlox Carolina.*

BY PROF. HENRY KRAEMER.

For some time I have felt the importance of making studies of the structure of the underground portions of American plants, as there are so many vegetable fragments of unknown origin in many cases which are found admixed with the more common drugs, and which have a superficial resemblance to them. Thus, unless careful garbling is practiced, these foreign plant parts may not only be found as an admixture, but as an entire substitute for the genuine drug.

My interest in phlox carolina dates back some twelve years when, at my request, Mr. C. D. Beadle, of the Biltmore Herbarium, sent me a number of plants which he collected in the mountains of North Carolina. While I did not make an extended study of the material at the time, I examined it sufficiently to lead to the conclusion that the material which Greenish described in his paper did not answer to the description of phlox carolina.† My main object at that time was to determine the origin of a substitute for spigelia, in which one of my students at Northwestern University discovered by accident the presence of calcium carbonate. This substitute was shown subsequently and independently by Stockberger‡ and Holm§ to be the rhizome of ruellia ciliosa.

In connection with their studies on spigelia marilandica and ruellia ciliosa, these authors have also described the structure of phlox ovata (phlox carolina). While the papers of Stockberger and Holm are excellent contributions to the subject, there are still some features which should be brought out more distinctly, especially from the practical pharmacognostic point of view. Stockberger considers that the rhizome and roots of phlox ovata "rarely or never occur as a substitute for spigelia," and I agree with him in a measure, but its occurrence is still reported and, besides, workers do not seem to be clear in regard to the characters of the drug. I do not, however, agree with the statement made by Stockberger that "the root so generally described and studied as phlox must be referred to ruellia," which latter drug I hope to take up later.

In order that errors may be eliminated from the literature, it should be pointed out that in the English translation of Solereder's Systematic Anatomy of the Dicotyledons, which appeared as recently as 1908, the translators continue the mistake in the original German edition of accepting as true the description given by Greenish** of what he had reason to suppose was phlox carolina, but which it has since been seen was not an authentic specimen. It should also be pointed out for the benefit of practical workers that the material studied by Prof. Greenish was drug material some of which was supplied by Prof. Maisch, but neither of them is open to criticism, both of them having accepted as probably genuine what was supplied them, as was then more customary. Indeed, Prof. Greenish did a very excellent piece of work, and nothing would have been left to be desired if he had

known the name of the plant from which the material with which he worked was derived and had named his paper accordingly, that is, by substituting the name ruellia ciliosa for phlox carolina. Later experience also shows that it is extremely hazardous to base a study of a vegetable drug on the commercial material alone, and that no studies of this kind can be considered entirely reliable or authoritative which are not based upon material collected from or compared with that derived from plants which have been identified.

The species belonging to the genus phlox are found chiefly in North America, where they number about thirty. The plants are mostly herbaceous perennials, a number of the species being extensively cultivated for ornamental purposes. The stems are either decumbent or ascending, or in some cases they are slightly decumbent near the base and then ascending, as in phlox ovata. Phlox ovata is found in open mountainous woods from Alabama to Pennsylvania, and there are some colored plates representing this plant in the *Botanical Magazine* (t. 528 and 1344). According to Gray, in his *Flora of North America*, phlox carolina is merely a taller form of phlox ovata, but having narrower, more tapering leaves and pointed calyx teeth, approaching phlox glaberrima. According to botanists to-day, the form with ovate or ovate-lanceolate leaves is regarded as the typical species, and the name phlox carolina has been superseded by phlox ovata.

Phlox ovata generally attains a height of from 3 to 6 decimeters. The stems are cylindrical, smooth, and the diameter is from $2\frac{1}{2}$ to $3\frac{1}{2}$ mm. Thus, they are seen to be slender stems, and in order to maintain their perpendicular position would need to be quite woody, especially in the lower portion, which they are. The so-called rhizome, which is merely an extension of the over-ground stem, is usually vertical, comprising from two to four nodes, and usually 1 to 2 cm. long. From the nodes arise from two to four comparatively thick roots, which are sometimes nearly 2 mm. in diameter in the fresh state, from 1 to 2 decimeters long, unbranched and produce a large number of fine rootlets, especially near the free ends (figure A). The commonly vertical character of the rhizome of phlox ovata is one of the features which distinguishes it from the rhizomes of both spigelia and ruellia, although it should be stated that occasionally decumbent stems are found which produce roots at the nodes. In neither case is that part of the stem producing roots a true rhizome.

The rhizome, or underground part of the stem, is characterized by a strong development of woody tissue, which in transverse section occupies about one-half of the radius. The bark is about 0.5 mm. in diameter, the xylem and phloem together are about 0.9 mm. in diameter, and the radius of the pith is 0.3 mm.

Histological Characters of Rhizome.—The epidermis in transverse section is made up of rounded tabular cells and is surrounded by a cuticle which is more or less lignified and 8 to 10 microns in thickness. Beneath the epidermis are two to four rows of collenchymatous cells, the remainder of the cortex being made up of about twelve rows of parenchyma cells, the walls of which are about 5 microns thick, the cells themselves being from 40 to 80 microns in diameter. All of the cells of the cortex are rich in protoplasmic contents, and sometimes contain a considerable number of small starch grains, 1 to 3 microns

*Read at the 1910 meeting of the American Pharmaceutical Association.

†Kraemer: A Course in Botany and Pharmacognosy, 1902, page 157.

‡*Pharmaceutical Review*, 25, pages 2, 33, 65, 97 (1907).

§*AM. JOUR. PHARM.*, 78, p. 553; 79, p. 51 (1907).

***Pharmaceutical Journal and Transaction*, 21, page 839 (1891); *American Journal of Pharmacy*, 63, page 226.

in diameter, Beneath the cells of the cortex there is usually a well-defined ring of endodermal cells, which may be more or less lignified, and which may also contain a few small starch grains. Beneath the endodermis is a layer of pericambial cells, which show one or two tangential divisions. Next beneath is the sieve, which is made up either of thin-walled, somewhat

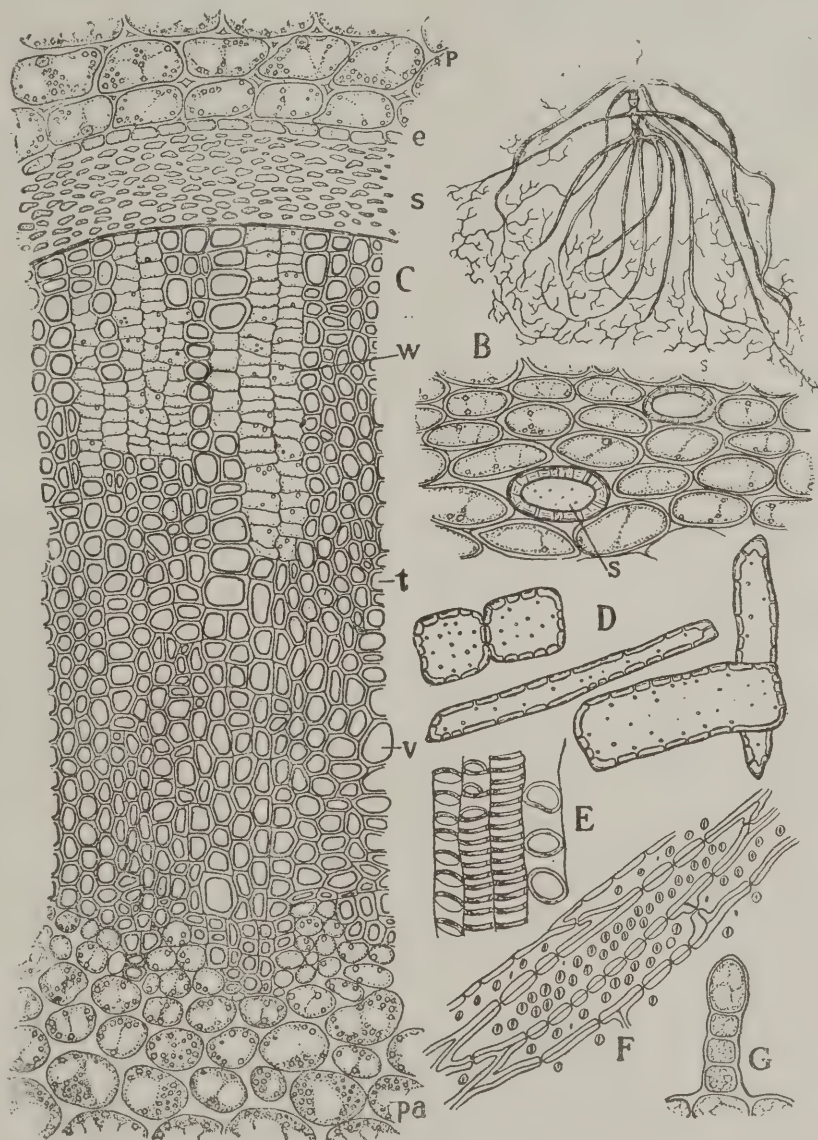
tabular cells, or of oval, very thick-walled cells. The sieve cells are rich in protoplasmic contents, and frequently contain a number of starch grains. The xylem portion of the fibrovascular bundles (figure C) is made up, of at least two, and frequently three areas—an outer layer composed of compact, strongly lignified stems but not here illustrated; a middle layer, as in figure C, in which there are radial rows of parenchyma cells separating the thick-walled lignified cells; and a continuous zone of lignified cells, as in figure C. The tracheæ are marked with bordered pores, and those near the center of the rhizome have annular and spiral markings, the number of tracheæ thus marked being rather striking and characteristic. Most of the lignified cells of the xylem are in the nature of

tracheids, which are narrower and longer than those in spigelia, being usually not more than 20 microns in diameter and about 500 microns long (figure F). The parenchyma cells in the outer layers of the wood not infrequently show the presence of a number of small starch grains similar to those already described. Underlying the xylem tissue, somewhat tabular cells, resembling those of the sieve, sometimes occur, but

for the most part all of the cells beneath the xylem constituting the pith, are made up of somewhat thick-walled parenchyma cells resembling those of the cortex. The walls of these cells are non-lignified, and are wanting in simple pores. The cells are rich in protoplasmic contents, and may contain a large number of starch grains.

The most characteristic features of the rhizome of

phlox ovata may be enumerated as follows: (1) The upright or vertical position of the rhizome; (2) the few rather long and comparatively thick roots extending from the nodes; (3) the comparatively thick xylem; (4) the absence of an internal phloem, the fibrovascular bundles being of the collateral type, and (5) the presence of starch in at least the rhizomes of the fruiting plants. The fact that neither Stockberger nor Holm found starch in this rhizome is probably due to their having worked with material in which it was present in rather small quantities, the amount varying unquestionably with the season of the year. I especially mention this point, in view of the fact that Stockberger places phlox in a group in which starch is wanting, and calls attention to its supposed absence as a differ-



Phlox Ovata L. (Phlox Carolina L.)

A, lower portion of plant showing long roots with numerous rootlets at the ends; B, parenchyma from cortex of rhizome showing two sclerotic cells (s); C, cross-section of portion of rhizome showing parenchyma of cortex (p) which contains protoplasm and starch grains, endodermis (e), leptome (s), tracheæ (v), libriform (t), wood parenchyma (w), parenchyma of pith containing starch grains and protoplasm (pa); D, isolated sclerotic cells from cortex; E, vessels with annular and spiral thickenings; F, libriform cells, G, glandular hair from the leaf.

entiating character.

The tendency of this plant to produce mechanical cells is further shown by the fact that some of the cells of the pith as well as of the cortex are thick-walled, strongly lignified, the walls being marked by rather fine simple pores (figures B and D). These cells as they occur in the pith are either cubical, or elongated with square ends, while those in the cortex are nar-

row, with pointed or oblique ends, and from 100 to 300 microns in length. Somewhat similar stone cells are found in the stem of *phlox pilosa* L. If the material containing these cells should be relatively abundant in a mixture, their presence would give another character for distinguishing the rhizome of *phlox* from that of *spigelia*. The stone cells in *ruellia* are different in shape, and in addition are associated with cells containing calcium carbonate. The presence of these special, thick-walled lignified cells in the rhizome of *phlox* may, however, be of infrequent occurrence, like the bast fibers in *belladonna*, which I have only occasionally seen, but which have been described by Schrenk, and therefore may not be of assistance in the identification of the drug. It might be mentioned in this connection, however, that groups of bast fibers have been found in *phlox aristata* Michx., and a ring of bast fibers in the stem of *phlox longifolia* Nutt., *phlox douglassi* Hook., and *phlox acuminata* Pursh.

Histological Characters of Root.—A transverse section of the root shows (1) ordinary epidermal cells with root-hairs; (2) a hypodermis made up of radially elongated, more or less pentagonal cells; (3) a cortex, consisting of 12 to 20 rows of ellipsoidal rather thin-walled parenchymatous cells, which are rich in protoplasm and may contain small starch grains; (4) a peripheral layer of the central cylinder; (5) endodermis; (6) internal layer of cortex, and (7) within this there is in the very young roots a triarch to pentarch radial fibrovascular bundle, which later becomes collateral and closely resembles in structure that of the rhizome.

While the stem is free from hairs the leaves have rather striking glandular hairs (figure G), which are found on the principal veins near the base of the leaf. The histological characters of the leaf have been very well given by Holm, and it therefore does not seem necessary to consider them here.

I may say in conclusion that I am engaged in the study of the structure of the underground parts of other species of *phlox*, as possibly the rhizomes and roots of other species may occur as admixtures in drugs, and besides the genus is of great interest botanically.

[Those who wish to pursue the study of this subject further will doubtless be interested in the following articles which appear in recent issues of the CIRCULAR: "Ruellia as a Spigelia Substitute," by William Mansfield, *Phar. D.*, March, 1909, page 110; and "A Contribution to the History of Pinkroot," by M. I. Wilbert, November, 1909, page 573. There are also notes and references germane to the subject in the issue of the CIRCULAR for August, 1908, pages 359 and 370; March, 1909, page 107; December, 1909, page 626; and January, 1910, page 12.—Editor THE DRUGGISTS CIRCULAR.]

Indelible Ink.

As a formula for an ink to be used in marking linens which are to be bleached with chlorine, the *Chemist and Druggist* offers the following:

Coal tar.....	20 ounces.
Benzol.....	25 ounces.
Lampblack.....	3 ounces.
Mix well. The liquid is very inflammable.	

Silver Coating without a Battery.

Two processes for depositing silver on brass or copper articles are given in the *Brass World*. They follow:

To procure the best results, the bath should be prepared with care and kept free from contamination with foreign matter. To prepare it take 2 ounces of fine silver (preferably in grain form) and dissolve it in nitric acid. This solution of nitrate of silver is next added to 1 gallon of distilled water and a strong solution of common salt poured in. This will precipitate the silver in the form of chloride. This precipitate is then washed in a thorough manner to remove all traces of acid, and the last rinse water should be tested with blue litmus paper to make sure that all the acid is removed. The chloride of silver thus formed is next mixed with an equal amount of cream of tartar and sufficient water to form a mass of the consistency of cream. The articles, after having been thoroughly cleaned or dipped, are immersed and stirred about until they are sufficiently white, when they are rinsed in hot water and shaken up in sawdust to dry.

An excellent formula and one extensively used is as follows:

a. Water	1 gallon.
Silver nitrate, crystals.....	1/4 ounce.
b. Water	1 gallon.
Potassium cyanide.....	1 pound.

Add solution *b* to *a* (pour the potassium cyanide solution into that of the silver nitrate) little by little with stirring. A precipitate is at first formed which then is dissolved. When no more of the precipitate will dissolve, add no more. If any precipitate remains undissolved after vigorous stirring, then add a little more of the cyanide until it just barely dissolves. The object is to use just enough of the cyanide solution to dissolve the silver nitrate and no more. In this manner no free cyanide is present. Use the solution hot at a temperature of about 150° F. If the dip contains much free cyanide, the silver will come dull and yellow. By using no free cyanide, it will deposit on the work in a perfectly white and bright condition. The secret of bright dip silvering is to have no free cyanide.

The cyanides being extremely poisonous, care should be taken to provide against their contact with the skin for fear of absorption through unobserved abrasions.

Dry Mountant for Photographs.

Dry-mounting tissue is made by painting tissue-paper, laid on a waxed glass surface, with the following liquid:

Sandarac	1 ounce.
Copal	3 ounces.
Shellac	4 ounces.
Resin	3 ounces.
Venice turpentine.....	2 ounces.
Alcohol	11 ounces.
Oil of turpentine.....	11 ounces.

The impregnated paper is allowed to dry spontaneously; then it is stripped from the glass, and cut into pieces of the desired size. For use, a piece of the exact size of the print is placed between it and the mount, a piece of thin paper is placed over the print, and the whole is evenly pressed with a hot iron.

Combatting the Traffic in Morphine and Cocaine.

On December 14th last there was a hearing before the committee on ways and means of the national house of representatives on certain bills introduced by Representative Foster, of Vermont, for the purpose of restricting the sale of opium and other narcotics. Among those addressing the committee were Dr. Hamilton Wright, American delegate to the International Opium Commission; Dr. William Jay Schiefelin, of New York, president of the National Wholesale Druggists' Association; and Dr. George D. Rosengarten, and Christopher Koch, of Philadelphia. The remarks of the latter are of especial interest as showing some of the inside workings of the crusade against the narcotic evil, and some of the details of the evil as actually shown to exist. During the course of his address to the committee, Mr. Koch was interrupted a number of times by members who wanted certain statements repeated or elucidated, by remarks from others attending the hearing, and by an adjournment or two. Eliminating most of these interruptions, repetitions, etc., the gist of Mr. Koch's remarks, as officially reported, was as follows:

Mr. Chairman and gentlemen of the committee, I have with me a collection of dope, consisting of cocaine, opium, opium layouts, and various "cures" that we seized in the recent crusade that was carried on in the State of Pennsylvania—and more particularly in the city of Philadelphia.

I might say that I happen to be the vice-president of the State Pharmaceutical Examining Board of Pennsylvania and have conducted during the last year a crusade, particularly in the city of Philadelphia, to wipe out the illegal sale of cocaine and morphine. If it is the pleasure of the committee, I would like to show these exhibits.

The question of narcotics is one that is very little understood by the layman. I, personally, am entirely in accord with Dr. Hamilton Wright, and the result of my investigation has proved absolutely the facts which he brings forth in his report.

CONSUMPTION OF OPIUM IN THE UNITED STATES.

I will hurriedly go over a few of these facts. In the decade from 1860 to 1869 the consumption of opium in the United States was 1,425,196 pounds; in the decade from 1900 to 1909 the consumption was 6,435,623 pounds. The increase in population during that time was 133 per cent. The increase in the consumption of opium was 351 per cent. In other words, the consumption of opium increased almost three times as rapidly as the population.

There are in the United States, according to Dr. Hamilton Wright, about 120,000 Chinese, and 35 per cent. of the Chinese consume about 100,000 pounds of smoking opium. There is absolutely no legitimate use for smoking opium. The only thing it is used for is smoking. There are also 150,000 Americans in the United States who smoke opium, and they consume about 68,000 pounds of smoking opium annually.

Dr. Wright has visited all the cities in the United States, and he has visited all the institutions and gone through the Chinatowns and the penal institutions, and by a process of deduction he gets those figures. That is gone into in great detail in his report. My experience proves that those figures are correct. In the Chinatown in the city of Philadelphia there are enormous quantities of opium consumed, and it is quite common, gentlemen, for these Chinese or "Chinks," as they are called, to have as a concubine a white woman. There is one particular house where I would say there are fifty white women living with Chinamen as their common-law wives. The Chinamen require these women to do no work, and they do nothing at all but smoke opium day and night. A great many of the girls are girls of good family, and the history of some of them is very pathetic. You will find those girls in their younger days went out with sporty boys, and they got to drinking. The next step was cigarettes. Then they go to the Chinese restaurants, and after they go there a couple of times and get a drink in them they want to "hit the pipe." They do it either out of curiosity or pure devilish-

ness. These drugs are all very seductive—cocaine even more so than opium. Finally they find that the pipe fails to satisfy them and they take to morphine or laudanum. They go down a step further and then learn the use of the hypodermic syringe. After that they get drowsy or melancholy and they want something to brace them up and regenerate them. That is where cocaine comes in. Cocaine produces an intense exhilaration, while morphine is just the opposite.

Italy, with a population of 33,000,000, consumes about 6,000 pounds of opium annually. Austria, with a population of 46,000,000, consumes between 3,000 and 4,000 pounds annually. Germany, with a population of 60,000,000, consumes about 17,000 pounds annually. Holland, with a population of 6,000,000, consumes 3,000 pounds annually. Adding up the population of these four countries we have 145,000,000 people in those four countries, and they use about 30,000 pounds of opium. The United States, with a population of about 91,000,000, used last year 400,000 pounds of opium, which is more than thirteen times as much as was used by the combined population of those other countries.

Mr. DALZELL. In those other countries is the consumption legitimate?

Dr. KOCH. It is legitimate; yes, sir. They have drastic laws which make it impossible to buy these drugs except on the prescription of a physician. It has been estimated that of the 400,000 pounds of opium which we import, 25 per cent. is all that is used legitimately. In other words, 300,000 pounds of opium are used illegitimately every year. Eighty per cent. of these 400,000 pounds of opium is manufactured into morphine, and 75 per cent. of all of the morphine that is manufactured is consumed by "dopes."

NINETY PER CENT. OF COCAINE USED BY "FIENDS."

Now, we come to cocaine. Cocaine is a drug which has been known only about twenty or twenty-five years.* During that time the manufacture has risen from nothing to 150,000 ounces every year. It has been estimated that 90 per cent. or 135,000 ounces of cocaine goes to make "fiends" out of human beings. Ninety per cent. of it, gentlemen!

COCAINE AND CRIME.

The colored race in the South, I have reason to believe, is very much perverted by cocaine. Dr. Hamilton Wright is my authority for stating that down on the plantations they lace the liquor with it. A great many of the crimes that are committed in Pennsylvania (and from information received from other States, a great many of the crimes committed there as well) are traced directly to cocaine.

The colored population in Philadelphia is full of it, or was. We have cleaned it up. The colored people seem to have a weakness for it. It is a very seductive drug, and it produces intense exhilaration. Persons under the influence of it believe they are millionaires. They have an exaggerated ego. They imagine they can lift this building, if they want to, or can do anything they want to. They have no regard for right or wrong. It produces a kind of temporary insanity. They would just as leave rape a woman as anything else and a great many of the Southern rape cases have been traced to cocaine. It is not confined to the colored race entirely. Lots of white people use it, too. I am sorry to say that lots of professional people use it—people who ought to know better; I mean lawyers, physicians—physicians principally—and some pharmacists and trained nurses.

HOW COCAINE IS USED.

There [indicating] is some cocaine that we seized in a raid in Philadelphia. The way they use the cocaine—the colored people and other people—is this: They have a little lid or something, and they have a little blunt instrument. They put one or two of the crystals like these [indicating] in the lid, and they break it up with what they call the "crusher." They grind it up to a powder. A good many of them will use a blower. They simply put the powder in a glass tube, put the tube up the nose, stick this rubber tube in the mouth, and blow it up their nostril [illustrating]. Some will use the tube without the rubber and

*Cocaine was first isolated in 1855 when it was called erythroxyline. Cocaine is mentioned by that name in the Circular for August, 1860, the dieresis showing that it was pronounced correctly (as three syllables). In November, 1886, we printed a demand for legislation to prohibit its sale except on prescription.—Editor THE DRUGGISTS CIRCULAR.

just sniff it up the nose in that way [illustrating]. Some of them will put it on the back of the hand and sniff it up in that way [illustrating].

Mr. CLARK. They take it in powdered form. I know all about it in the town I live in. If you give one of them a dime's worth of cocaine, it makes him crazy as a bedbug.

Dr. KOCH. That is what it does, Mr. Clark. It has been estimated that 6 per cent. of all the persons entering our penal institutions are addicted to some kind of a dope habit, in the way of morphine, cocaine, or the opium pipe.

Mr. CLARK. We have a law out in Missouri that puts an end to that. We fine them \$100 once or twice and send them to jail, and they quit selling it.

Dr. KOCH. There is a certain retail druggist in St. Louis who disposes of about 200 ounces a month.

Mr. CLARK. They will get him, too.

THE PERCENTAGE OF PEOPLE WHO ARE "FIENDS."

Dr. KOCH. They ought to get him. Forty-five to 48 per cent. of all criminals are dopes. That is almost 50 per cent.; 21.6 per cent. of lewd women are dopes; 2.06 per cent. of the medical profession are dopes; 1.32 per cent. of trained nurses are dopes; 0.684 of other professions and 0.16 per cent. of other adults are dopes.

I think the professional people who use those drugs use them when they are run down and have a lot of work to do. They take drugs to either suppress nervousness or brace them up. They take morphine to quiet them, and they take cocaine to brace them up. It seems strange, but nevertheless it is true, that the people who know most about it fall for these things themselves.

When a person first starts to take it, the effects are much more lasting. After the system becomes used to it the doses become larger and are repeated at very much shorter intervals. We arrested a man in Philadelphia who, in a sworn statement, stated that he took one ounce of cocaine in three days. The average dose in a prescription would be a quarter or half a grain, and there are about 437 grains in an ounce, so you can see the enormous quantities that they can consume.

Mr. HILL. How long would that man live, continuing that?

Dr. KOCH. This fellow is about twenty-five years of age, I should think. I would say that he would not live more than five or six years if he kept it up at that rate.

LOCATING THE GUILTY DEALERS IN PHILADELPHIA.

In the city of Philadelphia it became my duty, as a member of the pharmacy board, to investigate this traffic, and some of the things we discovered there, gentlemen, were horrible.

Along about a year ago one of my detectives, Joseph Di Giovanni, came to me and said: "Doctor, here is some cocaine that I bought." I said, "Where did you get it, Joe." He told me a certain address on Lombard street. "Well," I said, "go down and shadow the place and see what you can get." He reported to me the next day, and he brought me another package, and he said, "That place is frequented by young boys and girls." I said, "Watch it." Well, he watched it for a few days longer, and this is what we discovered. We would find groups of five or six youngsters ranging from twelve to sixteen years of age coming up Eleventh street to the corner of a little street known as Naudain street. One of the number, just one, would go down Naudain street and go into this place, 1014 Lombard street. The entrance was from the rear. There was a long alley-way, and at the head of the alley-way there was a door. The door had a wire grating over its upper half, and on coming up to the door you pressed a little electric button. Instead of the door opening, they would let down a panel of it, which was hinged on the inside, and a colored man would stick his face out. If he knew you, you handed in your money and got your dope. If he did not know you, he would kick you out. We found that this place was frequented by possibly thirty or forty of these youngsters, a good many of them Italians, and boys supposed to be attending school.

The condition was so horrible that we resolved to break the practice up at any cost. Our board has no State appropriation, and I went to one of the leading attorneys in Philadelphia, Samuel M. Clement, Jr., and explained the situation to him. He was so shocked he immediately volunteered his services. Through the aid of Mr. Clement we secured the co-operation of Director of Public Safety Henry Clay, who placed city detectives at our disposal. Upon further investigation we found that this "hell hole" was absolutely as I have stated. These school children were tak-

ing this terrible drug and ruining their lives. The newspapers made quite a hurrah about it, and said that we were faking it.

Gentlemen, we had the proprietors of that place in court in about ten days, and we had the goods in court. We had six of these school children in court, and they were so small you could barely see their heads over the witness box. We convicted the two negroes and they were sentenced to three years in prison.

Now, gentlemen, here is a jar of cocaine [indicating] that we seized there. Here is a bag containing the cocaine in the way in which they sold it, in these little packages [indicating]. We seized over 1,000 of these packages. These youngsters would buy these packages at 10 cents apiece.

MANUFACTURING THIEVES AND MURDERERS.

Mr. LONGWORTH. How much is there in there?

Dr. KOCH. One or two grains. These boys would steal the money to buy it. After they get the "habit" they must have it, and these little kids were petty thieves. They would steal the money from their mothers' pocketbooks; and around in that section I found on investigation real-estate men were missing a lot of lead pipe, brass cocks, etc., from vacant houses. The theft of these was traced to these boys. They would steal these things to get the money to buy "coke."

As these boys get older the habit grows stronger, and they have to have more "coke." They will not work. Their crimes become greater, and these are the fellows that eventually wind up as desperate criminals—the man who shoots to kill if discovered in his robberies. In my judgment, there is very little hope for them. You can cure them if you remove the drug and keep them where they can not get it; but as soon as you remove the restraint, cocaine being so seductive and having such a strong hold on them, they go right back to it.

ACCOUNT BOOKS OF A COCAINE DEALER.

There was another place in the city of Philadelphia known as Blake's place, where a man Blake lived with a blond woman. This woman, about a year before we arrested her, was a woman weighing, I should say, about 160 or 165 pounds. She acquired the habit, and at the end of one year she was a wreck. The man, a fellow about twenty-five years of age, was the same way. He had been an opium smoker, and from that he drifted to morphine, and finally to cocaine. This fellow was very methodical and kept books, and in his books we find every day his entry of sales of cocaine. Gentlemen, mark you, this is a secret practice. Drug habits are all secret vices. Everything connected with it is done in secrecy, and see how careful they are, so as not to get caught. They sold it only to persons they knew or who were vouched for by somebody that was "all right." Every time he sold it he would mark down the name of the person who bought. He has here: "Tot, 50 cents; Tick, 50 cents; Emma, \$1; Turkey, 25 cents; Buck, 40 cents; Pete, 40 cents," and so on down the line. This fellow had a number of these books, and here is a scale [indicating] that we took from him, on which he weighed the stuff. These rubbers, we also got there. These are blowers. They use these for taking the powder. Our State laws can and do prohibit the sale of cocaine, but not these blowers. Here [indicating] is some catarrh powder that we seized at this place. It contains eight grains of cocaine to the ounce. Under the federal law you can not prohibit the manufacture of this, but the State law can. The federal law can regulate its sale by such a bill as is proposed by my friend Dr. Wright.

Mr. DALZELL. Does that contain on the package a statement—

Dr. KOCH. A statement that it contains eight grains of cocaine to the ounce.

AN OPIUM LAYOUT.

Here is something else that we got at Blake's place [indicating]. This is an opium layout, gentlemen. I do not know whether you have ever seen one. [Laughter]. I think it might be interesting. Now, if it is your pleasure, I will show you how they use this [indicating opium pipe]. I will not smoke it, but I will show you how it is done.

The extent of a man's habit is regulated by the number of pills he smokes. A moderate smoker will smoke maybe five or ten or fifteen pills. A smoker with a bad habit will smoke fifty or one hundred pills. He will take his time; an inveterate smoker will smoke maybe four or five hours. The common belief is that opium makes them sleep. At

first it does, but after they acquire the habit it does not. A confirmed opium smoker gets no effect from the drug. It is merely the want of the drug that affects him. When he has not got the drug, that is when he feels bad. They have what they call their "habit," and they must satisfy it. It becomes like food to them. When they want to smoke they will get up and stretch and work around in this way [illustrating]. That is the way you can tell their habit is coming on them. Opium and morphine are very much the worst drugs for the individual. Cocaine is the worst drug so far as society is concerned. A man under the influence of cocaine is a dangerous man. At the time of Blake's arrest we seized over 1,000 of these empty bottles [indicating]. There was a whole loft full—that is the catarrh powder.

DETECTIVE CATCHES A TARTAR.

In another place we served a warrant on a little bit of a negro wench who weighed less than 100 pounds. The detective read the warrant and she said: "All right, I will go along with you." She was lying in bed, with her clothes on, and she got out of bed, as he thought, and in getting up she pulled this knife [indicating] from under the pillow. She was just about to stab him in his groin, and if it had not been that there were two of them she would have stuck it in him. She was "junked up" with "coke." There was a tussle. She bit one detective on the thumb and the other one she bit on the arm, right through his clothes.

I have here various other implements that we seized [indicating].

Mr. HILL. This powder is taken through the nose, you say?

Dr. KOCH. It is taken through the nose; yes, sir.

Mr. DALZELL. I see by the label that this is made in New York.

HOW COCAINE IS PEDDLED.

Dr. KOCH. That is not made in Pennsylvania. We will take care of that. Cocaine is largely sold by pedlers. The pedler goes around and usually carries it in cigarette boxes or match boxes. Here is one that we got in a cigar case [indicating]. Here are more cigarette boxes [indicating]. These fellows go around through the Tenderloin and peddle it to anybody that wants it. They have it in little packages, the same as I showed you, which they sell at 10 cents a package. The fellow that peddles it, in turn gets it from a fellow who buys it from another fellow in about one dram to half-ounce or ounce lots. The fellow that gets it in dram to half-ounce to ounce lots buys it from a third fellow who buys in anywhere from one- to five-ounce lots, and he in turn gets it from the druggist. In Philadelphia there are less than 1 per cent. of the druggists that dealt in the stuff. A few druggists in the Tenderloin have the monopoly, and they get it from the wholesale druggists.

The sale from the manufacturer to the wholesale druggist, and from the wholesale druggist to the retail druggist, is legitimate. We can trace that by the records furnished us; but after it reached the druggist we were stuck. So we set up in the cocaine business ourselves. We rented a room in the Tenderloin, got a couple of "cokers," and kept them a couple of months. We fed them anything they wanted. We "loosened up." If they wanted a quarter we gave it to them. If they wanted "coke" we gave it to them. First we got the users coming around. From them we worked up to the pedler; from pedler to the small dealer; from there to the larger dealer; and then to the wholesale illegitimate dealer; and there we were stuck again. On the 28th of March we hurried over to the police department fifty-eight warrants. We had warrants for all these fellows, including about ten large wholesale illegitimate dealers. We knew these fellows were buying the stuff, but we could not connect them with the druggist. We arrested them, and held them for hearing thirty days later, and they were sent to the county prison. After they had been there eight or ten days, and realized that two or three years' imprisonment stared them in the face, they sent for me. I saw them, and they were willing to make statements.

We brought them up to Mr. Clement's office one at a time, and we took their statements. Those are a bunch of the statements [indicating]. Ordinarily, I would not believe the word of a dope fiend, but here we had statements from all the large dope dealers. Gentlemen, strange to say, every one of their statements interlocked. As the result of those statements we got the druggists, and we took them into court and convicted them. Out of about seventy-five

cases we lost only two. One of them we deserved to lose, and the other was a miscarriage of justice.

PROFIT IN THE BUSINESS.

Mr. BOUTELL. What is the actual value of the stuff they sold for 10 cents.

Dr. KOCH. It costs about \$3.50 or \$3.75 an ounce. From these statements we learned that these fellows who had access to these few druggists paid at the rate of \$6 and \$8 an ounce for it to the druggist. In other words, the druggist would buy it for \$3.50 and sell it to these other fellows for from \$6 to \$8. They would average from \$25 to \$40 profit on an ounce, the 10-cent package costing them 1 or 2 cents.

We found by these statements that there was one druggist in Philadelphia who would sell to one of these poor unfortunate dopes at one sale \$100 worth of cocaine every Saturday, and we found that this druggist, who had most of these dopes as customers, had an agent on the street who did nothing but solicit orders from these dope dealers. We found there was another druggist that would buy morphine in 100-ounce lots every month. He would contract every three months for 100 ounces of morphine a month. That store in the Tenderloin would sell from twelve o'clock midnight until five o'clock in the morning about 5 ounces of morphine, and an ounce of morphine will last an ordinary druggist three or four months. An ounce of cocaine will last the average druggist for one year. That statement is based on the records of the reports to us by wholesale dealers and manufacturers in the State of Pennsylvania, and I think Dr. Schieffelin will bear me out in that.

We also found, gentlemen, in the city of Philadelphia, that the inspector of drugs for the port of Philadelphia—that is, the United States inspector of drugs—was dealing in cocaine on the side. He had access to a large manufacturing house, and he would go there and buy the stuff and then turn it over to these dopes. He would buy 20 ounces at a time at the wholesale price of \$2.50 an ounce, and he would turn it right over to another fellow who would wait for him on the outside at \$6 an ounce.

FILTHY HYPODERMIC SYRINGES IN USE.

Now, gentlemen, those are some of the conditions that we found in the abuse of these drugs. In Pennsylvania we have a cocaine law.

By the way, I want to show you a few hypodermic syringes that we took from these fellows. There is a choice collection here of all kinds of hypodermic syringes [indicating], and I might show you how some of these fellows use them. The fellow who used this syringe was a man by the name of "Dory Rose." This is broken, but I will demonstrate with this. He had a dirty old silver spoon that he would use. He had this dirty, filthy bottle [indicating]. He would put the morphine in the bottle and melt it with the heat of a match and then pour it into the spoon and suck it up with the syringe from the spoon. Then he would jab this needle right through his coat into his arm. That fellow's body was one mass of small holes and running sores. These fellows who used these needles have absolutely no knowledge of antiseptics, and they get running sores all over their bodies.

This particular place that Ashmead [the drug inspector for the port of Philadelphia] frequented had what they called "hypo parties." There would be eight or nine mixed couples. They were all dopes, and they all used the needle. They would go through all sorts of orgies, and at a given time they would throw up their legs and all "take a shot" from their hypodermic syringe.

INTERSTATE BUSINESS IN MORPHINE AND COCAINE.

Here [indicating] is a bottle of so-called morphine cure. It contains nothing but morphine. There are a number of these that were exposed by Dr. Wiley and the American Medical Association, and this is one that we got in Pennsylvania.

This is the way they sold morphine [indicating]. Morphine was sold in these stores without any label. It contained no poison label, and it was sold indiscriminately. Anybody could buy it that had the price.

We thought in the city of Philadelphia, and in the State of Pennsylvania, that we could control it. We cleaned it out of the city of Philadelphia, but since we cleaned it out in Philadelphia they have started bringing it in from Camden, New York, and Trenton. They would have runners who did nothing but go from one State to the other. The system of reports that we have in Pennsylvania makes it

necessary for the manufacturer to report his sales. These are some of the reports [indicating], and some of the revelations in these reports should indicate to you the necessity for an interstate law. We find that States such as Georgia, North Carolina, South Carolina, Missouri, Ohio, and a few others, are buying cocaine in Pennsylvania in large quantities. There is a certain doctor in the city of Mount Gilead, Ohio, who buys every month from one of our manufacturers 256 ounces of cocaine. In one month he bought 384 ounces and in another month 512 ounces. Remember, gentlemen, the average consumption of cocaine is less than 1 ounce per year per druggist. This man is a doctor. What does he do with it? I do not know.

We find in the city of St. Louis, Mo., a little bit of a druggist, not even rated in Dun or Bradstreet, buying 200 ounces of cocaine a month. In the city of Augusta, Ga., a number of druggists are buying 20, 25, and 50 ounces, and some 100 ounces every month. What are we to do in Pennsylvania? We are powerless. We can not do anything. We find they are sending it into our State from New York. There is a large manufacturing concern that does business all over the United States that has agents in Pennsylvania selling cocaine along with other drugs. Their agents make the statement, "Buy from us. It is not reported to the State board. The State board does not know anything about it." That concern is one of the largest in the world, and we have asked them to give us reports. They say: "We do not have to make reports to you people. We do not do business in Pennsylvania. Our office is in New York." We are powerless. That concern supplies a good deal of the cocaine that goes wrong in our State, and there is no way of reaching people of that kind except by an interstate law.

I have here several letters. I have one letter mailed to a man in Atlantic City, N. J., trying to work up a cocaine business in another State—sending it from one State to the other. Here is another letter from a concern in St. Louis, Mo., soliciting orders for morphine—and this letter, gentlemen, was sent to an inmate of the Norristown Insane Asylum, at Norristown, Pa., who was there as a result of the drug habit. These sharks follow their victims to the grave. They sent this letter to this poor unfortunate still soliciting orders for morphine. That is interstate, and we can not touch it.

Now, gentlemen, I think I have shown you that this is a secret and a vile habit, and that the only way to eradicate it is to eliminate the secrecy. There is no better way of eliminating the secrecy than by turning on the lime-light. This bill before you is the way to do it.

Dr. Schieffelin, Dr. Wright, and Dr. Rosengarten spoke somewhat along the same lines, and W. S. Richardson, representing the National Association of Retail Druggists, presented the resolutions adopted at the 1910 meeting of that organization in favor of restricting the sale of habit-forming drugs, especially the interstate traffic in them. Further reference to hearings on this bill are made in the news columns of this issue.

Bitterless Fluidextract of Cascara.

Börner (*Apoth. Zeit.*) suggests the following process for making a fluidextract of cascara sagrada free from the bitter principles:

Cascara sagrada.....	1000 grammes.
Freshly slaked lime.....	35 grammes.
Citric acid.....	enough.
Distilled water.....	enough.
Alcohol.....	150 grammes.
Glycerin.....	150 grammes.

Mix the ground bark with the lime, and extract to exhaustion with distilled water in a steam bath. Evaporate the extract to about 5000 grammes, and neutralize with citric acid while hot. Allow the liquid to cool, then heat slowly to 100° C. and strain. Evaporate the liquid to 700 grammes; mix the alcohol and the glycerin and add to the liquid, and after it has stood for a few days, filter the extract.

Simple Treatment for Corns.

In the method of treating corns to be described a writer in the *St. Louis Medical Review* depends upon the macerating power of ordinary adhesive plaster to effect the result sought. A strip of this material from $\frac{3}{8}$ to $\frac{1}{2}$ an inch in width and 4 to 6 inches long is to be applied in spiral fashion to the affected toe, covering the digit from neck to nail. The degree of tightness of the application deserves consideration, to avoid compression. However, the feelings of the patient when stepping upon the foot will serve as an adequate guide in this matter. Given instructions to cut through the plaster lengthwise or to soak off the entire dressing by immersion in a hot water foot bath affords ample protection in cases of undetected microbic infection. Soaking the foot for ten to twenty minutes in water at a temperature of 110° F. with gentle removal, by rubbing with a piece of sterilized pumice stone or forceps, of the crown of hardened epidermis shortens the time of treatment. Properly applied the plaster strap dressing should afford relief from the moment of its application and may be worn continuously for from one to six or eight weeks—bathing seeming not to affect the adhesive properties of the plaster after it has once set. Removal of the dressing at the end of an adequate time reveals the corns completely freed when it may be picked out entire by means of a dressing forceps or after an additional soaking. A wisp of absorbent cotton held on by means of a narrow adhesive strap may be subsequently worn for a few days.

For Mange in Swine.

Linseed oil.....	1 pint.
Sulphur.....	4 ounces.
Camphor.....	$\frac{1}{2}$ ounce.

Old-Fashioned Cough Candy.

Canada snake-root.....	1 ounce.
Pectoral species.....	2 ounces.
Sugar.....	12 pounds.
Molasses.....	8 ounces.
Oil of wintergreen.....	10 minims.
Oil of sassafras.....	10 minims.
Oil of anise.....	10 minims.
Water.....	enough.

Make a decoction of the herbs with 4 pints of water, and strain. Cook the sugar, the molasses and a little water until it forms a homogeneous mass; slowly stir in the decoction, and cook the batch to 310°. Pour the mass on an oiled slab; and as it cools, incorporate the oils. Finally cut it into drops of the desired size.

Syrup of Horehound.

Horehound herb, contused.....	7 ounces.
Sugar.....	13 ounces.
Boiling water.....	enough.
Water.....	enough to make 1 pint.

Digest the herb for one hour, on a water bath with enough boiling water to cover it. Strain, press, and evaporate to 7 ounces, cool and filter. This liquid must be filtered cold, and in it must be dissolved the sugar, with gentle heat. Finally add enough water to make the whole measure 1 pint.

Abstracts

Poisoning by Aconite.

A case of aconite poisoning resulting from the inadvertent taking of half an ounce of a liniment is reported by Edgcombe (*Lancet*). The liniment was a mixture of aconite liniment 4 parts, belladonna liniment 4 parts, chloroform liniment 4 parts, tincture of capsicum 4 parts, and oil of gaultheria 8 parts. Recovery followed the hypodermic injection of 10 minims of solution of strychnine and a hot rectal injection of 8 ounces of strong coffee, the patient being wrapped in hot blankets, and hot-water bottles applied. Noticeable features of the case were the absence of any odor of gaultheria about the patient until he vomited on the introduction of the stomach-tube, and the absence of dilation of the pupils, which might have been expected after such a large dose of belladonna. These features for a time caused the physicians in attendance to doubt whether the case was really one of poisoning.

Detection of Small Quantities of Nickel.

Bianchi and DiNola (*Boll. chim. farm. through Chem. Zeit.*) have found the following reaction useful for detecting small quantities of nickel. The substance under examination is dissolved in a few drops of concentrated hydrochloric or nitric acid, the solution rinsed with a little water into a porcelain dish, made alkaline with ammonia, acidulated again with acetic acid and mixed with a saturated solution of dimethylglyoxime solution. In the presence of nickel a persistent red color will be produced in the liquid, becoming more intense after standing for a short time. The presence of iron and copper does not interfere with this reaction.

The Seed of *Camellia Japonica*.

Kitamura (*Journ. pharm. soc. Jap.*) has succeeded in isolating from the seeds of *camellia japonica* a crystalline substance, which he has called camellin, and which is present in the seeds to an extent of three per cent. It occurs as white plates, melts at 181-184° C. and possesses the empirical formula $C_{15}H_{32}O_7$. It is almost insoluble in water, slightly soluble in cold alcohol, easily soluble in hot 80 per cent. alcohol. The author has prepared tetracetyl and benzoyl derivatives of camellin and has found that the latter gives on hydrolysis a colorless syrupy substance and a sugar, resembling rhamose.

Bismuth a Possible Tenuicide.

A correspondent of the *American Journal of Clinical Medicine* reports a case in which three unsuccessful attempts were made to relieve a child of a tape worm, the medicine being vomited; for disturbance of the stomach, pepsin, hydrochloric acid, and bismuth subnitrate were given and in two weeks the worm was passed, colored deeply by the bismuth. He asks: "What part did the bismuth play in expelling the worm?" In an answer by the editor it is said: "We have heard of tapeworms being voided by patients receiving bismuth for other disorders. Some experiments in this direction might prove instructive."

Some Color Reactions of Adrenine and Allied Bases.

Ewins (*Journ. Physiol. through Pharm. Journ.*) reports an investigation of the more characteristic color reactions which from time to time have been suggested for the identification or estimation of adrenine, and the following have been described: (1) The production of a rose-red color on the addition of iodine (Vulpian). (2) The formation of a red color on the addition of mercuric chloride (Comessatti). (3) The production of a reddish-violet color by the action of potassium bi-iodate and phosphoric acid (Fränkel and Allers), or by the action of iodic acid (Krauss). With solutions of the pure base, the delicacy of Vulpian's reaction is very great; a distinct reaction is obtainable with solutions of one of the hydrochloride (or other salt) of adrenine in 1,000,000. The color is apparently due to oxidation under the influence of iodine, the same color being produced by the action of other oxidizing agents, or when dilute neutral solutions of adrenine are allowed to stand exposed to light and air. The Comessatti reaction is considered by the author to be a particular instance of a general reaction. The following details are given to ensure the reaction being obtained with certainty: To 1 c.c. (mil) of a dilute solution (1:100,000) of adrenine in distilled water is added an equal volume of a solution of sodium acetate (1 per cent.), followed by 4 to 5 drops of a solution of mercuric chloride in distilled water (1:1,000). If the solution now be warmed to 40°-50° a rose-red color is immediately obtained. At the laboratory temperature (15°) a pale rose tint is obtained after four or five minutes. The use of sodium acetate ensures uniform results. In the Fränkel-Allers reaction it appears that free iodine plays an important part, but it is modified to some extent by the conditions under which it is made. It is a very delicate test; a distinct reaction may be obtained with a solution of one of adrenine in one million. The reaction has been modified and intensified by G. Bayer, who adds sulphanilic acid to the solution as prepared by Fränkel and Allers; a yellow color instead of the normal rose tint is produced, and is seen in a solution of one of adrenine in five millions. Potassium persulphate oxidizes adrenine, giving a characteristic red color. This reaction has advantages over those mentioned both in sensitiveness and in being readily obtained with crude extracts of the glands, etc. The characteristic color reactions of adrenine are given by other closely related bases, namely, by (a) the amino base corresponding to adrenine; (b) dihydroxy-phenylethylamine and the corresponding methyl, ethyl and propylamine base; (c) aminoaceto pyrogallol. The bases of the type aminoaceto catechol do not give these reactions.

Physico-Chemical Studies of Rubber.

Hinrichsen (*Zeit. ang. Chem. through Journ. Franklin Inst.*) summarizes the more recent contributions to the chemistry of rubber. The author regards the constitution of the hydrocarbon as being definitely settled by the researches of Harries, and refers to the possibility of synthetic production. The determination of the molecular weight of the substance present in the globules of the latex has given results which indicate that this substance is not the comparatively

simple compound supposed by Weber, the molecular weight being about 3000. The rubber is undoubtedly present in the latex as a typical colloid. The recent work on the optical activity of the rubber resins and on vulcanization by sulphur chloride is referred to. The reaction in vulcanization appears to be a true chemical reaction, but in presence of moisture, it is accompanied by the formation of sulphur chloride which is absorbed by the rubber. The maximum addition of S_2Cl_2 is represented by the formula $(C_{10}H_{16})_2 S_2Cl_2$.

Separation of Solid and Liquid Fatty Acids.

On the property of solid fatty acids of being insoluble in an excess of ammonia water when kept at a temperature of $14^\circ C$., David (*Compt. rend.*) has based a process of estimating these acids in mixtures with liquid fatty acids, the latter being perfectly soluble in ammonia water under the same conditions. Two grammes of the mixture of the acids are dissolved in 5 c.c. (mils) of hot 95 per cent. alcohol, mixed with 50 c.c. (mils) of ammonia water (22°), the mixture heated until gas bubbles are formed and then allowed to stand for several hours, preferably over night, at a temperature of $14^\circ C$. The ammonium salts are then collected on a filter, washed with ammonia water until the filtrate no longer gives a cloudiness with baryta water, and then decomposed on the filter by the addition of diluted hydrochloric acid. After thorough washing, the acids are dried in the usual way and weighed. The results thus obtained are said to be accurate within 0.2 to 0.3 per cent. By this method stearic acid, palmitic acid, oxy-stearic acid, isooleic acid, laurinic acid and arachidic acid can easily be separated from oleic acid.

White Phosphorus Matches Prohibited in Great Britain.

An act prohibiting the manufacture or sale of white phosphorus matches in Great Britain, or their importation, came into force January 1st, 1910, so far as the manufacture and importation of such matches were concerned, but a clause was inserted suspending its operation for a year, as to their retail sale, in order to enable stocks to be cleared. This clause, which makes it unlawful for any person to sell or to offer or expose for sale or to have in his possession for the purpose of sale any matches made with white phosphorus, therefore took effect with the beginning of the present year. The congress of the United States has under consideration at the present time a bill of a similar purport.

A New Sugar Isolated from Mullein Root.

In addition to the glucoside in mullein root (*verbascum thapsus*), first isolated by Harlay, Bourquelot and Bridel (*Journ. pharm. chim.*), have isolated a new sugar which they have called verbascose. This sugar occurs as a light, white powder, melts at $219^\circ C$. and turns polarized light 170° to the right. On hydrolysis it yields levulose, glucose and galactose, and it therefore seems to be very nearly related to stachyose, from which it differs, however, by its melting point and its higher rotatory power.

Titration with Potassium Permanganate.

Sarkar and Dutta (*Zeit. anorg. Chem. through Journ. Soc. Chem. Ind.*) review the fact that in estimating organic substances with potassium permanganate in warm acid solution, if the temperature is too high the end point is not definite, and after the substance is entirely oxidized, separation of manganese dioxide and slow but unlimited decolorization of the permanganate solution takes place, along with the evolution of oxygen. The rate of oxygen evolution is far greater than in boiling acid solution of permanganate alone, so that some catalytic or cyclic action is probable. It is known that in a boiling solution, manganese sulphate will reduce potassium permanganate with the formation of manganese dioxide, so that some progress beyond the ordinary end point is easily explained, but the progress made even beyond the point of complete oxidation of all the manganese sulphate is still unaccounted for. Manganese dioxide itself is found to have a slight reducing action on permanganate if the solution is slightly acid, and this reduction is favored by adding more acid or by raising the temperature, that is by the conditions which favor the formation of more manganese sulphate from the dioxide and the acid. The authors therefore suggest that the course of reaction between a boiling solution of oxalic and sulphuric acids and solution of potassium permanganate is as follows: (1) $3(5 C_2H_2O_4 + 2KMnO_4 + 3H_2SO_4 = 10CO_2 + K_2SO_4 + 2MnSO_4 + 8H_2O)$; (2) $2(3MnSO_4 + 2KMnO_4 + 2H_2O = 5MnO_2 + K_2SO_4 + 2H_2SO_4)$; and (3) $2MnO_2 + 2H_2SO_4 = 2MnSO_4 + 2H_2O + O_2$, (2) and (3) being subsequently repeated as often as required, provided the supplies of sulphuric acid and permanganate are kept up. It is not advisable therefore to use potassium permanganate in acid solution for titrations at temperatures above about $81^\circ C$. Incidentally the validity of equation (2) is confirmed, the irregularities which have led to the suggestion of other equations being explained by the disturbing effects of equation (3) at high temperatures.

Fatigue a Cause of Enuresis in Children.

Nicoletopolanis (*Arch. Med. des Enfants through Brit. Med. Journ.*) concludes that one of the causes of the nocturnal incontinence of children is physical fatigue. In support of this, he cites cases in which it was observed that when the active exertions of children subject to enuresis were restrained by various circumstances, the trouble ceased. Thus a boy was found to be cured when at school, where he was less actively running about all day; but relapsed during the holidays and on those days where the usual active pastimes were indulged in. Another case had no enuresis when kept in bed for some days, but relapsed on again getting about. Other similar cases are quoted. It is thought that the deep sleep which follows physical fatigue is responsible for the involuntary micturition; and it is also suggested that the hyperacidity of the urine caused by this fatigue may be a contributing agent.

Fatal Poisoning by Mistletoe.

It has been reported that three small children were fatally poisoned at Luxora, Ariz., on Christmas by eating mistletoe berries.

Estimation of Acacia in Syrup of Acacia.

Bellier (*Ann. des Falsif.*) recommends the following method for the determination of acacia in syrup of acacia. Twenty-five c.c. (mils) of a mixture of 25 c.c. (mils) of the syrup and 25 c.c. (mils) of water are transferred to an Erlenmeyer flask and after the addition of 1 c.c. (mil) of a 10 per cent. solution of calcium chloride mixed with 40 c.c. (mils) of alcohol. The flask is then stoppered well and allowed to stand for 24 hours, rotating occasionally. After this time the clear liquid is decanted, and the sediment in the flask shaken well with 65 per cent. alcohol and thrown on a tared filter. The precipitate is first washed with 65 per cent. alcohol, then with strong alcohol and after drying to constant weight, weighed. The acacia, thus recovered, is free from sugar and contains only 3.6 to 4.2 per cent. of ash.

Vichy Salt.

Natural Vichy salt is prepared by evaporating the water of the springs at Vichy and the neighboring country to such a consistence that the salts easily crystallize out from the liquid on cooling. The salts are then collected, dried at the air temperature and exposed to an atmosphere of carbon dioxide by which the carbonates are converted into bicarbonates. Wal-lat (*Journ. pharm. chim.*) has found that the natural Vichy salt invariably contains lithia, although at times in only spectroscopically small quantities, by which it can easily be distinguished from the artificial salt prepared according to the Codex.

Van Bysterveld Medicine Company.

The Van Bysterveld Medicine Company, of Grand Rapids, Mich., is discussed in the pharmacology department of the *Journal of the American Medical Association*. The concern dealt with advertises that it will "locate the cause of your aches and pains" free. All that is necessary is that a small sample of urine be sent to the company and the free diagnosis will be forthcoming. The Van Bysterveld concern claims to have a "secret process" of uranalysis that has been "handed down generation after generation and most carefully guarded by the old families of Europe." To test the genuineness of the claims and the work of the company five individuals sent in what were purported to be "specimens" for examination. In three of the cases the samples sent were a mixture of hydrant water, anilin dye and traces of ammonia and pepsin; in the other two the samples were a mixture of hydrant water and 5 per cent. of glucose. In no two cases were the diagnoses alike and in no case was the presence of sugar mentioned.

Another Consumption Cure Fake.

The *Journal of the American Medical Association* calls attention to another consumption "cure," advertised by a company under the corporate name of J. Lawrence Hill, A.M., M.D., Jackson, Mich. In the advertisements, says the *Journal*, a cure of consumption is promised and a sample package sent on request and the receipt of twenty cents. This is followed up in the usual way by letters, symptom blanks, etc., and if the victim sought is inclined to balk, the fees are reduced from \$10 down to \$5 and later to \$3.25 before he is altogether given up. The

"treatment" consists in the administration of "globules," "plasma," "systemic wafers," "ozonol," and "laxative tablets," which were examined in the association's laboratory. The globules gave traces of iron, quinine and strychnine, with guaiac; the "systemic wafers" were concluded to be essentially milk sugar; the "plasma," stearic acid ointment with oil of wintergreen, etc.; while the ozonol seems to be a mixture of aromatic oils resembling sassafras, peppermint and eucalyptus. The drugs will not cure consumption in any stage, but they might upset the digestion of the person taking them. Testimonials are employed as usual. Four clergymen whose names were used as character witnesses denounce this use of their names as supporting the claims of J. Lawrence Hill and have demanded its discontinuance. Advertising doctors also furnish a portion of the testimonials. Some of the testimonials from alleged cured patients have been looked up and their unreliability exposed in the article. Hill is a graduate of the Chicago Homeopathic Medical College, 1894, but in his advertisements he claims to have graduated from Edinburgh University. Inquiries made of the authorities of the University of Edinburgh, says the *Journal*, brought the reply that there was no record of his graduation there, the only appearances of his name being in the matriculation records for 1877-8 and 1878-9.

Fruitola.

An alleged gallstone "cure" marketed under the name of "fruitola" is the subject of a note in the *Journal of the American Medical Association*. The preparation is described as consisting of an eight-ounce bottle of oil and six powders, four of the latter being in blue papers and two in white. The directions on the bottle tell the patient to dissolve the contents of two blue papers and one white paper in a glass of water and drink it about 3 p. m. At bedtime the entire contents of the bottle are to be taken and early the next morning the contents of the remaining papers are to be dissolved and drunk. The following instructions are given: "When the medicine operates use a vessel partly filled with water, pour in more water or stir the contents, and the gallstones will float on top in the shape of dark green lumps, varying in size from a pin head to a hickory nut, in bad cases even larger." The *Journal* says, these "dark green lumps" are nothing but the soapy concretions that usually are passed when massive doses of oil are taken. The nostrum was analyzed in the association's laboratory and from the results it was concluded that the oil was nothing more than olive oil flavored with a trace of anise, while the powders were the ordinary seidlitz powders.

Salvarsan.

The preparation known as "606" is to be made at one factory, it is said, and under the personal supervision of Prof. Ehrlich; and the name, as was reported in the CIRCULAR for last December, will be "salvarsan." The indications from various reports are that the results from the use of this remedy are not as certain as was at first expected; much danger attends its use, among other risks being the possibility of destruction of sight; and the situation is still experimental.

The Modern Materia Medica.

Antirachit is said to be a mixture of bismuth, calcium and magnesium salts with milk sugar.

Antirheumal, exploited as a liniment for rheumatism, is said to be a solution of salicylic acid glycerin ester in glycerin and alcohol.

Antodyne is said to be phenoxypropanediol which is obtained by treating phenoxypropanoxide with water under pressure. It occurs as white needles which are easily soluble in water and in the usual organic solvents. It is exploited as an anodyne.

Cibrola contains glycerophosphates and casein.

Dentaesthin, a local anesthetic, put forward for use in dental surgery, is said to consist of cocaine hydrochloride, novocaine and synthetic suprarenin in physiological salt solution.

Empyrol is the name for a mixture used for preparing tar-baths. It contains juniper tar and an organic potassium salt.

Episan-Berendsdorf is the name for tablets exploited for the treatment of epilepsy. They are said to contain bromides, zinc valerianate and borax.

Ergoval is a proprietary name for a liquid extract of ergot.

Famel syrup, a French preparation, is said to contain "lacto-creosote," calcium phosphate, codeine, aconite and other constituents.

Ferrogen is an iron-manganese preparation with peptone.

Fortonal Tablets is an iron-lecithin preparation.

Galactenzyme is the name for tablets consisting of compressed bacillus bulgaricus.

Glacial, a local anesthetic, is a mixture of methyl chloride and ethyl chloride.

Herbacol is a calcium-iron syrup, containing also potassium sulphoguaiaacolate.

Iodgomenol is a mixture of niauli oil and tincture of iodine. It is intended as an antiseptic for wounds, is said to have a strong bactericidal power and to be more stable than tincture of iodine.

Katherdercreme is a solution of sodium oleate in glycerin.

Kystoskopcreme is a mixture of glycerin and tragacanth.

Maltocol is said to contain potassium sulphoguaiaacolate, sodium camphorate, cinnamic acid, malt syrup and sodium glycerophosphate.

Nenndorfer Antiseptic Mouth-Water, recommended for the treatment of inflammation of the mucous membranes of the mouth, contains cresol and menthol.

Neopyrenol is a "soluble form of thymol," containing also benzoin and sodium benzoate.

Nesain is an arsenic-protein containing 10 per cent. of arsenic.

Neucleogen contains iron "combined with nucleic acid," phosphorus and arsenic as methylarsenic acid.

Neuralgen, exploited, as the name indicates, for treatment of neuralgia, is said to consist of the oils of mustard, lavender, peppermint, cloves, lemon, mace, and valerian, camphor, menthol, alcohol, and chloroform.

Novo-Dentaesthin, a local anesthetic for dental use, is said to consist of eucaine lactate, novocaine and synthetic suprarenin in physiological salt solution.

Pellotinum Hydrochloricum, an alkaloid from anhalonium williamsi, has been recommended as a hypnotic. It occurs as colorless prisms, which are easily soluble in water.

Peppermint-Lysoform, a dental antiseptic, is lysoform flavored with oil of peppermint.

Pyonin is prepared by fusing together sulphur and sugar, dissolving the molten mass in water and boiling the solution with calcined soda.

Pyrogen is the name for sized cotton, saturated with the tinctures of benzoin and capsicum.

Reso-Salyl, a French preparation, recommended as an antiseptic and cicatrizant, is said to contain the salicylic acid ester of ethyl-resorcin, boric acid, borax, sodium benzoate, benzoic acid, camphor, terpin (?) and chloral hydrate.

Rhinoculin is a combination of adrenalin and subcutin, a salt (phenolsulphonate) of anesthesine.

Risin Ointment contains eucalyptol, menthol, anesthesin and adrenalin, incorporated into a sterile ointment base.

Subacetal is a mixture of lead subacetate and alum, designed for the extemporaneous preparation of aluminum acetate.

Syrofig is the name for a "syrup of figs" of German preparation.

Tampoids is the name of tampons, containing as fillers, iodine, heroine, ichthyol, etc.

Thermosine-Larochette is cotton, colored orange, and saturated with various substances.

Tribromopyrocatechin is a compound of bromine and pyrocatechin. It is exploited as an antiseptic.

Trigemine is a combination of pyramidon and butyl-chloral hydrate. It is a powerful analgesic.

Tyramin, the hydrochloride of p-hydroxyethylphenylamine occurs as a white crystalline powder. It reduces blood pressure.

Ungentum Duret is said to be prepared by heating together precipitated sulphur, coal-tar, and wool fat and incorporating into this mixture camphor, chaulmoogra oil and yellow petrolatum.

Ulcerine, an ointment exploited for the treatment of inflammation of the skin produced by radium rays and also of torpid ulcers, contains according to Gastan the extracts of populus nigra, populus balsamifera and populus tremulantis and the aqueous extracts of belladonna, henbane, solanum nigrum, and poppy, with peru balsam and lard.

"Honey and Flowers."

The hair preparation known as "honey and flowers" is made as follows:

Honey	10 grammes.
Handkerchief extract.....	10 c.c. (mils).
Almond oil, expressed.....	40 c.c. (mils).
Lime water.....	80 c.c. (mils).

Dissolve the honey in the lime water. Triturate the perfume with the oil; add the honey solution, and make an emulsion.

Just why anyone should want to put honey on his head, especially in fly time, it is hard to say.

Notes and Queries.

NOTICE.—It is desirable that all questions to be answered under this head should be received before the fifteenth of the month and they must be accompanied with the name and address of the writer.

Queries are not answered by letter. The information supplied in these columns is intended for the benefit of our readers in general, not for the profit of the individual inquirer only.

Aqueous Liquids in Capsules.—S. R., New York, writes: "Will you kindly discuss the following prescription:

R Syr. ferri iodid. ℥ v.
Liq. Donovan. ℥ i.

M. d. t. d. No. xxiv in capsules.

"Would you dispense it in liquid form, put in the capsules or mass it with some powder (such as althea)?"

We should not dispense these liquids as such in capsules because their aqueous nature would soon cause the dissolution of the gelatin containers. Shellac-coated capsules, which might be suggested, are not soluble in the gastric fluids, but would require the alkaline secretions of the intestines to dissolve them. Some of the "waterproof" (cellulose) capsules are slightly soluble in the intestinal fluids, but their use for the administration of medicine is not advisable.

As a first suggestion we should say, mass the liquids with an absorbent powder, as kieselguhr, but not with a vegetable powder.

Or, secondly, the capsules might be made with an equivalent of freshly prepared saccharated ferrous iodide, arsenous iodide, and red mercuric iodide.

As a third suggestion we offer the following compromise formula, which may prove even more practicable than either of the others:

Syrup of ferrous iodide. 125 minims.
Arsenous iodide. ¼ grain
Red mercuric iodide. ¼ grain.
Kieselguhr. enough to make a mass.

Mix; divide in 25 parts; and dispense 24 of them in capsules.

That Iron-Acid-Alkaloid Prescription.—W. E. B., Maine, wants to know whether he would be justified in clarifying a compound of iron pyrophosphate, phosphoric acid, and alkaloids by filtering out the precipitate which gives to the mixture the appearance of a pale pea-green kalsomine. These are the ingredients of the troublesome mixture:

Iron pyrophosphate. 1 dram.
Quinine sulphate. ½ dram.
Strychnine sulphate. ¼ grain.
Diluted phosphoric acid. 2 drams.
Water. enough to make 4 ounces.

To the filtration suggestion we must offer a gentle but firm "no." Better far to leave out the acid and the alkaloids in the first place; it is less expensive and the resulting medicament has greater therapeutic worth. The filtering of an incompatible prescription mixture is not to be sanctioned unless directed by the physician—even then it were better to call the attention of the prescriber to the nature of the precipitate in mixtures like the one under consideration.

Combinations of the scale salts of iron with phos-

phoric acid and usually with a quinine salt are among the most frequent examples of incompatibility met at the prescription counter. If no alkaloids are present a satisfactory mixture can be made by using the meta variety of phosphoric acid instead of the official ortho-phosphoric. When a quinine salt is present the trouble is not so easily obviated, and, as each new combination requires a practically different treatment, it is generally the safer plan to confer with the physician before compounding the mixture. This is particularly true with regard to mixtures containing strychnine, on account of the danger of an excessive quantity of this alkaloid being taken in the last dose. It is usually possible to get the prescriber to accept a modification of the prescribed remedy when it is pointed out to him that by so doing the patient will come nearer to getting what the prescriber wants him to have.

It is possible to produce a clear mixture of the drugs called for in the prescription by W. E. B., and that with but a very slight modification (if indeed any) of its therapeutic nature. This is accomplished in the following manner:

Dissolve the alkaloidal salts in the diluted acid, and dilute this solution with an equal quantity of water. Dissolve the iron salt in about 1½ ounces of water with the aid of a gentle heat, and mix this with a solution of 2 drams of sodium chloride in 1 ounce of water. Dilute the iron solution to 3 ounces; add the alkaloidal solution a few drops at a time, stirring the mixture vigorously; heat the solution gently for a few moments; add enough water to make 4 ounces, and dispense in an amber-colored bottle. The patient should be cautioned to return the mixture if any precipitate is deposited.

New York Board Questions.—A. K., New York. —We have not a complete collection of sets of examination questions used by the New York Board of Pharmacy during the last few years. Perhaps the secretary of the board, Warren L. Bradt, of Albany, has such a collection. However, from time to time, we have printed sets of questions asked by this board, as you may see by referring to the issues of the CIRCULAR for July, 1904, page 157; January, 1905, page 21; April, 1906, page 138; March, 1907, page 274; January, 1908, page 30; January, 1909, page 28; December, 1909, page 642; and October, 1910, page 519.

The CIRCULAR is on file at the Astor and some of the other public libraries and also at the libraries of the colleges of pharmacy.

Concentrated Essence of Bay Rum.—W. S., Connecticut.—Bay rum is a solution of oils in alcohol, diluted with water. By dissolving the desired oils in a small quantity of alcohol, one may make a product which he would be justified in calling a concentrated essence of bay rum. The directions for making bay rum of this should be to dissolve it in as much alcohol as was omitted in the first place from the quantity called for by the formula, previously mixed with the necessary amount of water.

A formula for spirit of myrcia was given in the Pharmacopœia of 1900, and a formula for a preparation which is offered as an improvement on the formerly official one, appears on page 82 of this issue.

Fenner's Tincture.—F. M. D., South Carolina, writes for a formula for Fenner's tincture, which he saw in the CIRCULAR not less than forty years ago, and maybe back of that.

The formula he alludes to is to be found in the issue for January, 1859, page 8, and is the same as the one given in the National Formulary under "Antacrid Tincture," a synonym for which is "Fenner's guaiac mixture."

The article in the old number of the CIRCULAR referred to is credited to Dr. Fenner, of New Orleans, in the *Virginia Medical Journal*. The author says he received the formula from his brother, Dr. Robert Fenner, of Jackson, Tenn., who said that it was not to be found in any medical book of the day, but had been learned by him from their father, who, in turn, had found it in an old English work, then out of print, by a Dr. Falk, of London. The latter author called the mixture by a name under which it is at present official "tinctura antacrida." Dr. Fenner, of New Orleans, stated that he had recently accidentally discovered the same formula in Ellis' Medical Formulary. By referring to that work (ninth edition, 1849, page 172), we find the formula under the general head "Sialagogues," and under the specific name, "Antacrid Tincture."

It is now in order for some medicine faker to have this preparation put up in a fancy package and rechristened with a fancy name, and then say that the American Pharmaceutical Association is teaching substitution by giving its formula in the National Formulary, or for the American Pharmaceutical Association, by virtue of its copyright on that book, to claim to have the right to prohibit the reprinting of the formula in the journals, formularies or textbooks.

Calculating Parts in Thousands.—R. E. A., Ohio, sends three prescriptions for aqueous solutions containing 1 part of a solid in 10,000, 20,000, and 50,000 parts, respectively, the prescriptions to be filled by adding a 1-in-1000 solution of the solid to water. He states how much of the stock solution and how much water he used in each instance, and asks if the proportions are right.

In diluting a 1-in-1000 solution of a salt to make a 1-in-10,000 solution; it is evident that 1000 parts of the stock solution (containing 1 part of the salt) added to 9000 parts of water, will make 10,000 parts of the diluted solution containing 1 part of the salt, or, 1 part to 9, to make 10. The prescription called for 1 ounce of the diluted solution. If 1 ounce is 10 parts, then 1 part is 1/10 of 1 ounce and 9 parts is 9/10 of 1 ounce. An ounce being 480 minims, 1/10 of 1 ounce is 48 minims, and 9/10 of 1 ounce is 432 minims. By adding 48 to 432 we got 480, by way of proof of the correctness of the work.

In the same way, to make a 1-in-20,000 solution by diluting a 1-in-1000 solution of a salt, 19,000 parts of water must be added to 1000 parts of the solution. This gives us 20,000 parts in all, in which there is evidently 1 part of the salt. In the case in question, 2 ounces of this diluted solution is wanted. For short, instead of saying 1000, 19,000, and 20,000, we may, without affecting the proportions in the least, say 1, 19, and 20. Then 20 parts is 2 ounces, and 1 part is 1/20 of 2 ounces, or 2/20 of 1 ounce, or 1/10 of 1 ounce, or 48 minims; while 19 parts is 19/20 of 2 ounces, or 19/10 of 1 ounce, or 912 minims, which

equals 1 ounce, 7 drams, and 12 minims. For verification, add to this latter quantity 48 minims, which gives us 2 ounces.

To make the 1-in-50,000 solution, add 1000 parts of the stock solution to 49,000 parts of water, making 50,000 parts of the desired solution; or, for short, add 1 part to 49 parts, making 50 parts. Of this solution 3 ounces is required. If 50 parts is 3 ounces, then 1 part is 1/50 of 3 ounces or 3/50 of 1 ounce. An ounce being 480 minims, 3/50 of an ounce is 3/50 of 480 minims, or 28.8 minims; and 49 parts is 49/50 of 3 ounces, or 147/50 of 1 ounce, which is 1411.2 minims, and this is equal to 2 ounces, 7 minims, and 31.2 minims. To this add the 28.8 minims, and we have 3 ounces.

We see no reason why more than the desired quantity should be made and a portion thrown away, when it is just as easy to make the exact quantity: we need not take into consideration fractions of a minim.

The work of our querist is correct, except for one clerical error, which does not affect his results.

Stable Solution of Magnesium Citrate.—G. P. D., Massachusetts.—We do not know whether or not the "large manufacturers" depart in any manner from the official formula and process in preparing a solution of magnesium citrate that will keep "more than a reasonable time." If they use a different formula or add a preservative they are required by the federal pure drugs act and the laws of most States so to state on the labels; and in some States the sale of such modified preparations under the official name is absolutely prohibited.

In a paper read at the Richmond meeting of the American Pharmaceutical Association J. K. Thum, of Philadelphia, stated that he considered the question of the deterioration of this preparation to be a bacteriological one, and offered the following suggestion for its solution:

It has been our custom for some time to sterilize our solution of magnesium citrate in the manner described below, and we are firmly convinced that it is the only legitimate and practical way of obtaining a satisfactory preparation from every standpoint. Special or elaborate apparatus is not needed for any work of this kind the pharmacist may want to do in his laboratory or behind his prescription counter.

Ordinary citrate bottles with washer stoppers are used. They are thoroughly cleansed, inside and out, filled completely with water, placed in a deep agate kettle and the stoppers allowed to hang at the sides of the bottles so as to insure their being immersed in the boiling water; the kettle is then covered and boiling carried on for thirty minutes. (We have observed that boiling for fifteen minutes is ample when every attention is paid to detail.) At the end of that time the bottles should be emptied and immediately stoppered. In the meantime the solution is prepared and filtered; each bottle is then filled, allowing, of course, enough space for expansion of the solution due to heat [and allowed to remain unstoppered, of course]. The bottles are now replaced in the kettle and it is filled with water, taking care not to have the water come too near to the mouth of the bottle; if this precaution is not taken the water will, in the process of ebullition, dilute the solution. Boiling is then carried on for thirty minutes, the bottles immediately stoppered, labeled, and stored away until needed for dispensing, when the requisite amount of potassium bicarbonate is added.

In the CIRCULAR for January, 1909, page 24, R. P. Daniel, of Texas, outlined a similar process which enabled him to keep the solution for upwards of two months, and in earlier issues much has been said on the subject.

Smelling Salts.—A. P., New York.—Some salt of ammonia being the base of most smelling salts, the perfumes for such preparations should be such as harmonize with the ammoniacal odor; these, according to Askinson, are oils of the rose, nutmeg or cinnamon class. The first two formulas here given are adaptations of two by this authority:

I.	
Ammonium carbonate.....	2 pounds.
Stronger ammonia water.....	1 pound.
Oil of bergamot.....	15 grains.
Oil of lavender.....	15 grains.
Oil of nutmeg.....	8 grains.
Oil of clove.....	8 grains.
Oil of rose.....	8 grains.
Oil of cinnamon.....	75 grains.

In a large porcelain jar mix the two ammonia derivatives; cover, and set aside. After some days the mixture will have changed into a firm mass of ammonium mono-carbonate, which should be reduced to a coarse powder; after which the oils, mixed, are to be rubbed in a mortar with about a tenth of the salt. The perfumed portion is then triturated with the other nine-tenths until the odor is equally distributed.

Preston Salt.

Mix finely powdered ammonium chloride with freshly slaked lime, and perfume as desired. The mixture continually develops small amounts of ammonia for a period extending over several years.

Snively, in his *Manufacture of Perfumes*, gives the following recipe:

Ammonium chloride.....	3½ troy ozs.
Potassium carbonate.....	4½ troy ozs.
Oil of lavender.....	½ fl. oz.
Oil of lemon.....	3 fl. drams.
Oil of bergamot.....	1 fl. dram.
Oil of clove.....	15 minims.
Ammonia water.....	enough.

Triturate the salts together, add the oils, and moisten slightly with ammonia water.

Liquid Rouge.—W. F., Pennsylvania.—We do not know the composition of the proprietary article you mention, but in the *CIRCULAR* for September, 1910, page 474, appear two formulas for liquid rouges, and here is another:

Ammonia water.....	2 ounces.
Carmine ("No. 40").....	1¼ ounces.
Triple extract of rose.....	2½ ounces.
Rose water.....	4 pints.

Reduce the carmine to powder, macerate it in the ammonia water for several days, add the other ingredients, and let the whole stand for a week, agitating frequently. At the end of that time allow the mixture to stand until the liquid becomes quite clear, when it is to be siphoned into small bottles for sale.

Face Powder in the Form of Cakes.—W. F., Pennsylvania.—As recently as in the *CIRCULAR* for October, 1910, page 518, we stated that any face powder may be made into cakes or blocks by adding to the powder from 6 to 8 per cent. of acacia, triturating the whole thoroughly and making it into a stiff doughy mass by incorporating water in small portions. This mass is cut or molded into the desired form and dried at ordinary temperature.

Herpicide.—J. L. C., Massachusetts.—We do not know the composition of this article. In the *CIRCULAR* for April, 1906, appears a communication from a reader who states that the following is "said to be the exact formula for this preparation:"

Boric acid.....	4 ounces.
Resorcinol.....	320 grains.
Salicylic acid.....	2 ounces.
Glycerin.....	2 fl. ozs.
Alcohol.....	4 pints.
Tincture of saffron (20%).....	192 minims.
Oil of bergamot.....	192 minims.
Oil of lemon.....	4 drams.
Water.....	enough to make 1 gallon.

In the *Sanitary Bulletin* of the New Hampshire Board of Health for April, 1907, appears an article entitled "Examination of Toilet and Other Preparations," which is reprinted in the *CIRCULAR* for September, 1907, page 589. From this article we quote:

Newbro's Herpicide.—Herpicide Company, Detroit, Mich. Leaves 2.5 per cent. of residue on evaporation, about 1 per cent. of which is salicylic acid, with some borax or boric acid. Shows no alkaloids or vesicants. Contains 56.2 per cent. of alcohol, practically all of which was found to be methyl, or wood alcohol. As a constituent of a dandruff cure, salicylic acid doubtless finds an appropriate place; the only objectionable ingredient in this preparation is the wood alcohol.

Another sample of herpicide was examined—such sample being said to represent fresh stock received since January 1st, 1907. The alcohol in this sample, amounting to 52.6 per cent., was also found to be of the methyl variety. Moreover, the package contained no statement of the percentage of alcohol, as is required by law in the case of all such preparations. So long as this product contains wood alcohol it cannot be legally sold in New Hampshire.

Perfume for a Dry Shampoo.—J. H. A., Michigan.—One can best judge of a suitable perfume for a dry shampoo by observing the tastes of his customers as indicated in their selection of handkerchief extracts, soaps, talcum powders, etc. Similarly he may arrive at the degree of odorousness that will appeal to prospective purchasers.

Despite the influx of the thousand and one "bouquets" and "blends," rose and violet continue as favorites among the scents, and their use for perfuming any toilet preparation is never ill-advised. For a rose odor, the oil alone is necessary. Some prefer the odor of a blend of oil of rose 25 parts and oil of wintergreen 1 part.

A pleasing violet may be made as follows:

Extract of cassie.....	1 ounce.
Extract of jasmine.....	½ ounce.
Solution of ionone (10%).....	¼ ounce.
Oil of orris.....	1 dram.

Among a certain portion of the human family a perfume something like the following will find favor:

Oil of lavender (aged).....	1 ounce.
Oil of cloves.....	6 drams.
Tincture of musk.....	2 drams.

Formulas for a number of synthetic odors appear in the issues of the *CIRCULAR* for November, 1910, page 574; and July, 1909, page 344.

Registration by One Board of a Licentiate of Another.—W. H. W., District of Columbia.—A query similar to yours was answered in last month's *CIRCULAR*, page 31, which had not reached you when you wrote.

More about Bay Rum.—That bay rum note of Brother Collins in the CIRCULAR for October, 1910, page 516, has stirred up more interest (see the CIRCULAR for last month, page 33) than we supposed it possible for druggists to manifest over a preparation which is generally regarded as a commonplace one. This pleases us immensely. A. G. Koehler, Missouri, now writes:

An article on page 635 of the December CIRCULAR attracted my attention as I once knew a Mr. Davies, of Pennsylvania, but as to caramel in bay rum, that is all a sad mistake. Why not add a few drops of ammonia water to a filtered product? This will give a far better color and one that will hold. I have tried both and believe mine is the better; also it leaves no color-mark on the shelf bottle on standing. I should like for Brother Davies to try the same.

Incidentally it may be mentioned that in spite of Brother Davies' prediction (in the CIRCULAR for December, 1910, page 635) Brother Collins' sample of bay rum shows no signs of throwing down any flocculent particles, but is as clear now as the day it was received several weeks ago.

From F. W. Scott, Jr., New York, comes the following:

Here is my formula for bay rum. It is particularly refreshing and approaches nearer to the imported varieties than do most of the domestic products:

Oil of bay.....	10.0 c.c. (mils).
Oil of cloves.....	2.0 c.c. (mils).
Oil of lemon.....	1.0 c.c. (mils).
Menthol.....	1.5 grammes.
Tincture of capsicum.....	8.0 c.c. (mils).
Acetic acid.....	20.0 c.c. (mils).
Alcohol.....	800.0 c.c. (mils).
Water.....	1200.0 c.c. (mils).
Purified talc.....	50.0 grammes.
Tincture of curcuma.....	enough.
Caramel color.....	enough.

Dissolve the oils and menthol in the alcohol, add the tincture of capsicum and acetic acid and incorporate the purified talc; then add the water in five or six portions, shaking after each addition. Filter. Add enough tincture of curcuma to make the filtrate a pale yellow, and then add a few drops of caramel color to give a brownish-yellow.

We want six of our readers to try this formula and report results to us. In the meantime we thank Mr. Scott for submitting it, and hope that he will send us others for different preparations, and that his example will be followed by our readers generally.

Furniture Polish.—F. G., California.—We printed nearly a whole page of formulas for all kinds of furniture cleaners and polishes in the CIRCULAR for January, 1910, page 20. One of these we reprint herewith in the hope that it, or some modification of it to be made by yourself after you have experimented, may prove to be what you wish:

Shellac.....	180 parts.
Sandarac.....	15 parts.
Mastic.....	16 parts.
Copal.....	16 parts.
Rosin.....	15 parts.
Alcohol.....	1,300 parts.

Mix, set aside in a warm place, shaking occasionally until dissolved, and filter.

Many of the anilin dyes are readily soluble in this liquid, and may be added thereto when it is desirable.

The woodwork is first carefully cleaned, and the polish is, after dilution with acetone, applied with a soft brush and rubbed down with a piece of silk.

An Acid-Resisting Ink.—W. F. G., Massachusetts, writes: "Can you furnish me with a formula for a chemical-proof ink? There seems to be a new ink which acids will not remove, especially good for writing labels, but the manufacturer of the one I have had cannot be found."

We are not familiar with the brand of ink that our correspondent has in mind, and so ask any reader who can offer any suggestion of value in this connection to do so.

In the meantime we think W. F. G. might with profit experiment with liquid india ink, which may be made by dissolving shellac in a hot aqueous solution of borax, and grinding the india ink in this. Ordinary lamp black may be used instead of india ink, but, of course, is not so good.

In this connection, too, may be found interesting and perhaps valuable the formulas below, taken from a little monograph on inks:

Hausmann's Indestructible Ink.

Mix 1 part of genuine Trinidad asphaltum with 4 parts of oil of turpentine, and color with a sufficiency of plumbago for black, or vermillion for red.

Close's Indestructible Ink.

Mix 25 grains of powdered cobalt [?] and 200 grains of oil of lavender, using a gentle heat; for black, color with 3 grains of lampblack, and 1 grain of indigo, both in fine powder; for red, with a sufficiency of vermillion.

Deodorizing Carbon Disulphide.—F. R. S., Iowa.—Perhaps the following process will be found useful to you: To 1 liter of the disulphide add 0.5 c.c. (mils) of bromine, and allow the mixture to stand three or four hours, after which remove the bromine with copper filings, or by shaking with a small excess of potassium hydroxide. Should the preparation then appear turbid, it may be cleared by shaking with a little potassium chloride, and filtering. Carbon disulphide thus purified is colorless, has no unpleasant odor, on evaporation leaves no residuum, and dissolves bromine without undergoing any chemical change.

It may be that for the purposes for which you intend to use the disulphide (of which you give us no intimation), perfuming it with some strongly aromatic oil would answer every purpose.

It should be borne in mind that carbon disulphide is a dangerous substance to handle, as not only is it very inflammable, but a mixture of its vapor with air has been known to explode at a comparatively low temperature. Bromine, too, is capable of doing considerable harm to those who handle it without proper caution, as we have abundant reason to know.

Cost of a Metric Outfit.—H., New York.—A set of metric prescription weights costs about 25 cents. A larger set, ranging up to 50 grammes, for use in the manufacturing laboratory, may be obtained for about \$2. Metric graduates cost about the same as corresponding sizes of the old-style, say \$1 for a set of three ranging from fractions of a cubic centimeter to 250 cubic centimeters. In this day when the Pharmacopœia, the National Formulary, and many prescriptions are written in the metric system, no drug store can afford to be without a set of metric weights and measures.

Eau de Quinine.—H. D. C., Indiana.—In the CIRCULAR for October, 1910, page 517, we stated that several years ago we had published the fact that Dr. Tscheppe failed to find any constituent of cinchona bark in a widely known "quinine" hair wash. As the tonic properties of the cinchona alkaloids when applied externally are believed to be entirely imaginary, their absence from a hair tonic would not detract from its value, although the drug officials doubtless require the presence of the alkaloid in any preparation bearing the magic name of "quinine hair tonic."

Numerous formulas for so-called hair tonics that do contain quinine are extant, and two were given in the issue to which we have just referred. Two more are here given, the first being attributed to Pron by the *New York Medical Journal*, and the second has been proposed for addition to the British Pharmaceutical Codex.

I.

Quinine hydrochloride.....	1 dram.
Tannic acid.....	2½ drams.
Tincture of cantharides.....	1½ ounces.
Glycerin	1½ ounces.
Eau de cologne.....	10 drams.
Vanillin	1½ grains.
Ground red saunders.....	7½ grains.
Alcohol.....	enough to make 2 pints.

Mix the several ingredients, and filter after they have stood for five days.

II

Quinine hydrochloride....	0.100 gramme.
Diluted sulphuric acid....	0.625 c.c. (mil).
Chloroform	0.500 c.c. (mil).
Alcohol	20.000 c.c. (mils).
Glycerin	1.500 c.c. (mils).
Cologne water.....	1.500 c.c. (mils).
Spirit of pimenta.....	25.000 c.c. (mils).
Tincture of cudbear.....	3.000 c.c. (mils).
Diluted rose water to make	100.000 c.c. (mils).

Dissolve the alkaloidal salt in 40 c. c. (mils) of rose water; add the acid and then the other ingredients.

Wood Flour.—J. H. A., Michigan.—Any finely sifted saw-dust will answer as the wood flour named as an ingredient in the dry shampoo formula in the CIRCULAR for October, 1909. The best sort is the boxwood saw-dust used as an absorbent by jewelers and watch-makers. This may be obtained from any dealer in jewelers' supplies. Generally it is desirable to sift the commercial article for obvious reasons.

Pazo Ointment.—E. J. C., Michigan.—The only reference we find to this preparation in any of the usual sources of information concerning such things, is in the CIRCULAR for April, 1910, page 193, where we find it stated that under the laws of Colorado it has been declared misbranded when labeled "The only perfect pile cure."

Concentrated Vinegar Essence.—C. P., New Zealand.—So-called vinegar is made by diluting acetic acid with water, in the proportion of 1 part of the acid (33 per cent.) to 4 or 5 parts of water. The resulting mixture, of course, is not vinegar and should not be sold as such.

Dental Mummifying Paste.—H. H. Brinkman, Ohio, seeing the note on this subject in the CIRCULAR for December, 1910, page 532, is kind enough to contribute the following formula:

- a. Zinc oxide..... 140 grains.
Thymol 30 grains. || Alum | 10 grains. |
| Mix thoroughly. | |
| b. Creosote. | |
| Glycerin. | |
| Formaldehyde [?]..... | equal parts. |
| Mix thoroughly. | |

For use, make a paste by kneading together the required amount of the two mixtures.

Mr. Brinkman states that he has used this paste and knows it to be good. He says that only the best materials should be employed in making it. He adds that some skill is required to place the paste properly in the root canals. Presumably by "formaldehyde" he means the official solution. In conclusion he expresses the hope that the information he has given will help some brother druggist. We commend that spirit of helpfulness, and thank Brother Brinkman for his formula, and hope that he will let us hear from him again and frequently.

Unguentine.—F. G., California.—We do not know the composition of this preparation. A few years ago we published a contributed note to the effect that it "represents alum compound (non-irritating), phenol, ichthyol, zinc oxide, aromatic and antiseptic oils, with especially prepared petrolatum and purified animal fat."

Formula for Making Chewing Gum.—S. K. K., New Jersey.—Contrary to what seems to be a widely prevalent idea, the formula for making many preparations is of secondary importance, the prime consideration in such cases as we now have in mind being the factory equipment and the ability, born of experience, to use it.

We think that an inexperienced man who has not the proper machinery can not compete successfully with established concerns in the manufacture of chewing gum. As a suggestion, however, to those who wish to experiment, we here print a few formulas:

I.

Gum chicle.....	240 parts.
White wax.....	64 parts.
Sugar	140 parts.
Glucose	128 parts.
Water	192 parts.
Balsam of peru.....	4 parts.
Flavoring	enough.

Dissolve the sugar in the water by the aid of heat and pour the mass on an oiled slab. Melt the gum, wax and balsam together and pour on top of the syrup, and work the whole together. Roll the mass out thin and cut into pieces of the desired size and shape.

II.

This one is from the *Bulletin of Pharmacy*, with some comments by the editor of that journal:

Considerable experience in manipulation is necessary to success and the published formulas can at best serve as a guide rather than as something to be

absolutely and blindly followed. Thus, if the mass is either too hard or too soft, the proportions should be changed until it is right. The following formula is offered for what it is worth:

Gum chicle.....	56 parts.
Paraffin, hard.....	15 parts.
Balsam of tolu.....	2 parts.
Balsam of peru.....	2 parts.
Sugar, granulated, fine.....	160 parts.
Glucose	64 parts.
Water.....	a sufficient quantity.

Soak the chicle in water until it absorbs all that it will take up. Melt the paraffin and balsams together and add the swelled chicle. In the meantime mix the sugar and glucose with 50 parts of water, and boil together until a little of the liquid withdrawn on the end of a stick and quickly dipped into a glass of cold water, snaps between the fingers on an attempt to bend it (what is called the "crack," or eighth degree, of candy boiling by confectioners). When this is reached, quickly remove from the fire and pour out on a large marble slab, the surface of which has been previously greased with butter or good sweet oil. As soon as the syrup is spread, add to it, a little at a time, carefully working in, the melted mixture of gums, paraffin, etc., until a portion of the mixture tested is found to have the proper degree of toughness. The flavoring (which consists of the essential oils, such as wintergreen, cinnamon, clove, sandalwood, etc., or any other substance that you may desire) should be well incorporated with the paraffin and gum mixture before adding to the syrup. These are the methods of procedure, and read easily enough, but you will find that it will pay you to employ an expert confectioner to carry them out. Sugar boiling, the carrying it to just the right degree, is an art in itself. You will need a large, smooth slab of marble, several inches thick, on which to do the mixing.

Other notes on this subject appear in the issues of the CIRCULAR for June, 1907, page 416; September, 1905, page 317; December, 1905, page 434; June, 1904, page 133; and in still earlier issues.

Duffy's Malt Whisky.—"Southron," Texas, asks two questions. One is, "Have the proprietors of Duffy's malt whisky changed the formula of Duffy's malt whisky since the food and drugs act went into effect?" Answer: They have.

The other question is, "If so, was it due to any decision of the food commissioners?" Answer: Each reader is at liberty to draw his own inference.

"Southron" also requests a report of an analysis of the preparation in which it was stated that it contained sugar. We do not know just which analysis he means, but we have seen a report to the effect that the "whisky" in question was essentially diluted alcohol, sweetened. The manufacturers now state that they have discontinued the use of simple syrup in this product.

Green Salve.—Referring to the note on this preparation in the CIRCULAR for December, 1910, page 631, Otto Raubenheimer, New York, writes:

Having some calls for grüne salbe from German and Jewish customers, I beg to inform you that I dispense beladonna ointment, as they generally want it for hemorrhoids.

An Absorbable Ointment Base.—F. R. S., Iowa.—The casein creams are not absorbable. The so-called vanishing creams are super-fatted stearate soaps with a base of sodium, potassium, or ammonium. A typical formula is the following:

Stearic acid.....	2½ ounces.
Sodium carbonate.....	3 drams.
Cacao butter.....	½ ounce.
Glycerin	2 drams.
Perfume	as desired.
Distilled water.....	to make 20 ounces.

Place the stearic acid and the cacao butter in a suitable vessel on a water bath and when it has melted add the sodium carbonate and the glycerin dissolved in 2 ounces of water. Heat with constant stirring until effervescence ceases, remove from the heat, add the rest of the water; stir with a glass rod until smooth; and beat to a fluffy mass.

A smoother cream results from the use of an equivalent quantity of stronger ammonia water to replace the sodium carbonate.

We are not satisfied that such an ointment base will prove practicable for your purpose. If not, you might experiment with a mixture of various fats, somewhat as follows:

Purified lard.....	4 ounces.
Coconut oil.....	4 ounces.
Mutton suet.....	4 ounces.
Oil of pimento.....	2 drams.

Melt the fats together at a gentle heat and stir until cold. Beat in the oil of pimento, which is added as a preservative; it may be omitted if the finished product is to contain salicylic acid.

The following formula, which has been suggested for introduction into the British Pharmaceutical Codex, is for an ointment with a base of the kind we have in mind:

Analgesic Ointment.

Methyl salicylate.....	50.0 grammes.
Menthol	10.0 grammes.
Stearic acid.....	8.0 grammes.
Sodium carbonate.....	1.2 grammes.
Glycerin	1.2 grammes.
Distilled water enough to make	100.0 grammes.

Melt the stearic acid on a water-bath, add the sodium carbonate and glycerin, previously dissolved in 4 c.c. (mils) of hot distilled water, continue the application of heat for an hour, with constant stirring, and make up the weight to 40 grammes with distilled water; then pour the mixture into a mortar, and add all at once the methyl salicylate, in which the menthol has been dissolved; stir until smooth, and transfer to collapsible tubes.

Lime Water.—Commenting on the note on this liquid, with illustration of apparatus for keeping it uncontaminated, which appears in the CIRCULAR for last month, page 22, Otto Raubenheimer, New York, calls attention to the fact that he has been using such an apparatus for eight or ten years, as set forth in a paper presented by him at the 1907 meeting of the American Pharmaceutical Association. This paper appears in the Proceedings for that year, page 179. Mr. Raubenheimer emphasizes the necessity for using U. S. P. lime and distilled water in making lime water. He does not endorse the practice of giving away this preparation, said to be indulged in by some druggists.

Rubber Tips.—F. W. Scott, Jr., New York, favors us with the following "tips" which are of interest and should prove of value:

"Here are two or three little suggestions that may help to lessen the aggravations and exasperations of Brother Druggist who sometimes thinks things not altogether in accord with his mild voice, cheery smile, and generally pleasing manner.

"When selling rubber ice bags, advise the customer to put the cracked ice in a basin of cold water for a minute before putting it into the bag. This takes off the sharp edges which otherwise might cut the rubber and shorten the life of the bag.

"Rubber hot water bottles should be filled only to half or three-quarters of their capacity, the sides of the bag being compressed until the water appears at the mouth, when the stopper is to be inserted and screwed tight. The air being thus removed, the rubber does not have to bear nearly the amount of strain it would otherwise have to sustain, and there is much more comfort for the patient using it. It is soft and pliable and conforms to the shape of that part of the body to which it is applied instead of being hard like a foot ball or punching bag.

"It is often necessary to attach new hard rubber screw fittings to syringes, stethoscopes, etc. But nine times out of ten the threads differ. A little force is used and bing! your fitting has a pretty little crack in it. Try boiling the fitting in water for two or three minutes. The hard rubber softens, after which the rest is easy, and you have done a neat little job.

"When making connections with soft rubber tubing stick the ends in boiling water for a few minutes and see how much further they will stretch."

If there were more observing pharmacists who communicated their observations to the press for the benefit of brother druggists, the "cheery smile" would grow broader and the "generally pleasing manner" would be more so. And this improvement would affect the man who sent the good stuff as much as the one who read it, as knowledge of a good deed accomplished by him makes a man's gastric juice flow more freely, aids digestion, chases worry and tends to help the general uplift. We believe that Mr. Scott is happier and in a generally more benevolent frame of mind for having sent us these "rubber tips," and while thanking him for them, we point to him as a shining example which we hope many others will emulate.

Mendel's Solution.—H. M. K., New York.—We are not familiar with a preparation of this name, but as you think that the solution about which you inquire is an iodine combination, we suspect that what you want is *Mandel's solution*, which consists of—

Iodine	10 grains.
Phenol	4 grains.
Potassium iodide.....	20 grains.
Glycerin	1 ounce.

Prof. L. B. Mendel, of Yale, and Prof. John A. Mandel, of Bellevue, each informs us that he has never suggested a solution of this sort.

Father John's Medicine.—C. B., New York.—We do not know the composition of this preparation, but have heard that it is a sort of an emulsion of cod liver oil.

Dyeing Natural Flowers.—E. J. G., Pennsylvania.—Successfully to dye cut flowers by immersing the stems in a solution of a dyestuff, these three things are essential: First, the dyestuff must be one that is freely soluble in water and is deposited in a finely divided state on the evaporation of the solvent; second, the solution must be a concentrated one; and third, the operation must be carried on in a warm dry room so as to facilitate the evaporation of the plant moisture.

The most important of these essentials is the one first named. Color merchants tell us that the best dyes are the anilins known as basic colors and those known as acid colors. Specific dyestuffs are acid green G G, for green; rhodamine, for pink; and auramine, for yellow.

Several years ago an inquiry as to coloring carnations green, a "fad" which has several times appeared in this city, attracted the attention of S. W. Williams, who undertook some experiments in regard to it. The substance of a report made by him to us follows:

Acid wool green B will answer the purpose. If the stalks of white carnations are allowed to stand for a few hours in a solution of this dye, the color is readily taken into the circulation, following the veining of the petals and producing a beautiful effect. Any depth of color from the faintest tint to a brilliant green may be obtained by varying the strength of the solution. A comparatively strong solution usually has the effect of giving a rich green border to the petals, with a more delicate tracing of the veining toward the center of the flower. Dilute solutions give a more natural effect. Naphthol green B acts slowly, but gives a very pretty tint.

There are very likely many other green dyes which will answer the purpose, and perhaps better; but the writer tried malachite green, direct green and a number of others with negative results. An acid yellow worked with indigo carmine may be made to produce colors ranging through apple to the more yellow greens, while the same blue used in connection with the wool green should give bluish greens.

Of the many dyes tried by the writer but about one in five were taken into the circulation of the plant. One theory to account for this is that basic dyes may be intercepted by tannins or other incompatible principles in the stalk, whereas acid colors may be allowed to pass on to the flower. As a number of acid dyes failed, however, to enter the circulation, the writer would seek to offer no explanation without further study. It is strange also that, of several flowers of the same kind placed in the same solution, some appropriated the color much better than others. One theory for this is that a flower not fully opened would naturally draw up the solution more readily than another which had more completely matured. The writer's experiments, however, have not proved this to be necessarily so, nearly full-blown flowers seeming to act about as well as any.

As to the comparative lasting qualities of flowers thus treated, some seem even superior in this respect to those not dyed.

Crocein scarlet, in rather dilute solution, will readily change a white Alaska or Harrison white into a beautiful pink carnation much resembling the "day-break," the veining of the perianth being, however, more marked in the dyed samples. This dye will pass four or five joints in the stem and color the flowers

pink within an hour, acting far more rapidly than most of the other colors.

Cyanole, extra, works satisfactorily where a blue tint is desired.

There seems to be no reason to doubt that any flowers with herbaceous stems would be susceptible to the same treatment as carnations. Those with woody stems would probably be less absorptive; but experiment in this line is so easy that those interested may well undertake it.

We should like to hear from E. J. G. and others as to what success attends their experiments along the lines herein suggested.

As to Morphine in Opium.—F. G. E., New York, whose two queries as to whether a sale of opium was necessarily a sale of morphine are answered in the issues of the CIRCULAR for last month, page 30, and the month before, page 633, now writes:

I am sorry that I have no extensive library of recent date or I should not have taken such a circuit so as to obtain the required information about that morphine law in order to keep it, for you cannot always tell by looking at a cat how far that cat can jump. When I was a boy I was taught by the late Rawdon Macnamara, of Dublin, to guard against considering every product of opium resulting from the action upon it of chemical reagents to be a distinct principle originally existing in the same proportion as so much sand would be in the opium examined. From recent views on the subject I certainly don't feel like a man that has been run over by a steam roller. Thanking you for your courtesy, etc.

Tedford's Cold Cream.—N. M. P., Missouri.—It is impossible for us to say just exactly what process is used by any specified manufacturer in making his cold cream. We have printed dozens of formulas for preparations of this class, in which all types were represented. Consult your annual indexes, and if you need help on any particular part of the formula or process which you select as being the one most likely to enable you to make the kind of cream you want, let us know and we shall see what we can do for you. We do not know what Tedford's cold cream is like, as it probably has small sale, if any, in the East, and so do not know what more to suggest to you just now.

Therox.—Charles Minarcik, Jr., New York, seeing the inquiry of "Thymol," Ohio, in last month's CIRCULAR, page 28, is kind enough to write that he has examined this preparation and has come to the conclusion that it is nothing more than perfumed borax.

We thank Mr. Minarcik for his interest and trust that he will let us hear from him again.

Appeals to Readers.—Information is sought concerning the articles listed below. We ask for such help as our readers can give:

Stomach Rite.—"Simplex," New Jersey.

Albucol; where may it be obtained.—E. M. C., Missouri.

Orange Manna.—C. W., Colorado.

Alternating Current Rectifier, and plates to be used in connection with the same, to change an alternating current of electricity to a direct current.—M. S., Illinois.

Mitchell's Magic Lotion.—F. G., California.

Woofter's Corn Remedy.—J. L. C., Massachusetts.

Caementium.—E. J. C., Michigan.

Booth's Mi-o-na.—E. J. C., Michigan.

Pazo Ointment.—E. J. C., Michigan.

Two New Dermatological Ointments.

The following are given in the *American Journal of Dermatology* as popular prescriptions in dermatologic practice:

Compound Pyrogallol Ointment.

Pyrogallol	5 grammes.
Ichthyol	5 grammes.
Salicylic acid.....	2 grammes.
Petrolatum	88 grammes.

Compound Chrysarobin Ointment.

Chrysarobin	5 grammes.
Ichthyol	5 grammes.
Salicylic acid.....	2 grammes.
Petrolatum	88 grammes.

Wool-Fat Cold Cream.

Hydrous wool-fat.....	12 ounces.
White wax.....	4 ounces.
Spermaceti	4 ounces.
Expressed oil of almonds.....	28 ounces.
Borax	144 grains.
Distilled water.....	19 ounces.
Oil of pimento.....	5 minims.
Oil of rose.....	20 minims.

Melt together the wax, spermaceti, and almond oil on a water-bath; incorporate this mixture with the wool-fat in a warm mortar and stir until almost cool. Gradually beat in the water in which the borax has been dissolved; beat well with an egg-whip, adding the perfume.

Almond Bleaching Cream.

The formula given below is from the *National Druggist*:

Hydrogen dioxide solution.....	4 ounces.
Glycerin	3½ ounces.
Powdered borax.....	2 drams.
Expressed oil of almond.....	2½ ounces.
Hydrous wool-fat.....	8 ounces.

Triturate the hydrous wool-fat and the almond oil until well mixed. Incorporate with this the borax dissolved in the glycerin and the hydrogen dioxide solution. Any perfume desired may be added. We suggest 40 minims of oil of rose geranium to the pound.

To Remove the Odor of Iodoform.

Minton (*Bull. Pharm.*) says that the odor of iodoform may be removed from the hands by wetting them with water, and then applying a small quantity of potassium carbonate and two or three drops of ammonia water. The odor will entirely disappear.

Veterinary White Oil.

Olive oil.....	8 ounces.
Oil of turpentine.....	1 ounce.
Ammonia water.....	2 ounces.

Wisconsin Board Questions.

Herewith are reprinted the questions published by the Wisconsin Board of Pharmacy at an examination held in October, 1910. Other sets of questions asked by this board appear in the issues of the CIRCULAR for February, 1909, page 81; December, 1907, page 780; October, 1904, page 234; October, 1897, page 314; and October 1895, page 250.

In reprinting board questions we endeavor to follow closely the nomenclature, spelling, punctuation and capitalization of the originals, our object being to give our readers, just as nearly as practicable, the questions as they were presented to the candidates.

Pharmacy.

1. (a) What U. S. P. infusion is made by percolating the drug with water? (b) State why cold water is better than boiling water for this infusion.
2. In making camphor cerate, why is the camphor linniment added last and while the other mixed ingredients are cooling?
3. (a) In preparing solid and fluid extracts by percolation, what should be the rate of flow of the percolate? (b) of tinctures and similar preparations?
4. Six ounces of a solution of bichloride of mercury is required, of such a strength, that one teaspoonful when added to enough water to make one pint, produces a $\frac{1}{2}$ per cent. solution. How much bichloride in the six ounce solution?
5. (a) In what form is ammonium acetate usually dispensed and why? (b) In what form are the iodides and bromides usually dispensed and why?
6. Name the ingredients and method of preparation of antiseptic solution, U. S. P.
7. (a) What two causes may render liquor plumbi subacetatis below the required strength? (b) Why is it necessary to dispense nitrate of silver and permanganate of potassium in distilled water?
8. (a) In giving atropine in a case of poisoning by morphine, what kind of an antidote is used? (b) What kind of an antidote would common salt be, if given in a case of silver nitrate poisoning? (c) State the difference between the two, if any.
9. (a) What are the principal advantages of the official glycerites? (b) Name three of the most important glycerites? (c) Give process for making one of them.
10. (a) What incompatibility exists between many fluid extracts and carbonates? (b) How do you account for the deep red color of Basham's mixture since none of the ingredients used in preparing it has this color?

Chemistry.

1. Name five official chemical compounds of salicylic acid.
2. (a) To what distinct class of chemical compounds does glucose belong? (b) What is the chemical formula? (c) How does it differ from cane sugar?
3. (a) Chemically, what is iodoform? (b) Give chemical formula. (c) State briefly how it is prepared.
4. (a) How are the salts of lead analytically distinguished from salts of zinc? (b) Salts of ammonium from salts of sodium?
5. Describe the principles involved in making alkaloid assays.
6. (a) What is the percentage of mercury in calomel? (b) in corrosive sublimate? In your calculations use atomic weights, 200 for mercury and 35.5 for chlorine.
7. Complete the following chemical equations. Name the producing as well as the resulting substances.
 - (a) $\text{Pb}(\text{NO}_3)_2$ plus 2KI equals
 - (b) 2AgNO_3 plus $\text{Ca}(\text{OH})_2$ equals
 - (c) CuO plus H_2SO_4 equals
8. Differentiate between a volumetrical normal salt solution and a physiological normal salt solution.
9. (a) By what test would you prove the presence of an acetate in aqueous solution? (b) How can olive oil be tested for the presence of cotton seed oil?
10. Write the chemical formula for (a) Bisulphide of carbon, (b) Ferric sulphate, (c) Sodium sulphite, (d) Hydrocyanic acid, (e) Tartaric acid.

Materia Medica.

1. Define the following terms:—(a) Inspissated, (b) Herbaceous, (c) Biennial, (d) Pollen, (e) Succulent.
2. (a) Name the principal alkaloid and what per cent. of the same should Ext. Nux Vomica contain. (b) What per cent. of the extract should the tincture contain? (c) Give percentage strengths of Tinctura Auranti Dulcis and Tinctura Ferri Chloridi.
3. Give official formula and method for preparing Emulsion of Cod Liver Oil, (b) Emulsion of Oil of Turpentine, (c) Emulsion of Asafetida, (d) Emulsion of Chloroform.
4. (a) What is the principal medicinal ingredient and how much of it is contained in 100 grams of Massa Hydrargyri? (b) in 500 grams of Blue Ointment? (c) in 1000 c.c. Tr. of Opium? (d) in 500 c.c. of Spirit of Nitrous Ether? (e) in 200 grams of Ointment of Phenol?
5. Give the official name of each of the following:—(a) Bland's Pills, (b) Brown mixture, (c) Citrine Ointment, (d) Labarraque's Solution, (e) Lugol's Solution, (f) Monsel's Solution, (g) Donovan's Solution, (h) Pulvis Pur-gans, (i) Tully's Powder, (j) Dover's Powder.
6. (a) Give Botanical name and natural order of the plant yielding coca leaves. (b) What official alkaloid does it yield? (c) Give Botanical name of the plant yielding chocolate and (d) what official preparation is a by-product in its manufacture.
7. (a) What is Aloes? (b) How would you detect an adulteration of Gum or Dextrin? (c) What is its active constituent? (d) How is Purified Aloes made? (e) What is the dose of Purified Aloes?
8. Give official names of the following:—(a) Vallet's Mass, (b) Salol, (c) Trional, (d) Sulfonal, (e) Sodium Hyposulphite, (f) Camphorated Oil, (g) Spirit of Glonoin, (h) Carron Oil, (i) Saccharin, (j) Deshler's Salve.
9. Give official titles and doses of five Saline Cathartics.
10. (a) How does the Pharmacopœia direct Triturations to be prepared? (b) Name an official Trituration. (c) Describe the method of making Troches. (d) Name two official Troches.

Menthol Rock Candy.

Crystal A sugar.....	20 pounds.
Cream of tartar.....	2 drams.
Menthol	4 drams.
Water	enough.

Put the sugar in a suitable kettle; add the cream of tartar and 5 pints of water. Set the kettle on the fire and stir the batch until it comes to a boil. With a little water wash down the sides of the kettle, and cook the batch to 340° . Pour the mass on an oiled slab; let it cool a little, and work in the menthol by folding the mass over and over. Work the mass into a long round strip; pull into sticks, and cut into half-inch pieces.

Medium for Boring Glass.

For giving a "tooth" to glass and to aid in boring it with a steel tool the customary way is to use spirit of camphor or a mixture of this spirit with oil of turpentine. A Bordeaux pharmacist offers the following formula for a better liquid for this purpose:

Camphor	1 gramme.
Benzene (crystallizable).....	10 c.c. (mils).
Expressed oil of almonds.....	3 c.c. (mils).

Dissolve the camphor in the benzene and mix with the oil. This mixture is very inflammable.

Foot Powder.

Talcum	8 ounces.
Starch	2 ounces.
Boric acid.....	1 ounce.

The effort to please the ultimate consumer is as pitiless as any force of nature.—*New York Times*.

Some Questions in Drug Store Mathematics.

Here are a few questions which may interest the drug clerk who wants to keep his knowledge of arithmetic bright until such time as he is ready to "go before the board." We invite clerks to send in solutions of these examples and also to contribute problems of a similar nature for publication here. In these examples official strengths; temperature, etc., are to be understood unless the contrary is specified:

1. A formula for toilet powder calls for 100 parts of the finished product. The clerk is told to make a batch of 5 pounds of the powder. How much must he use of an ingredient of which the formula calls for 20 parts?
2. One clerk receives a salary of \$50 a month and saves 60 per cent. of it; another clerk receives \$70 a month and saves 40 per cent. of it. At the end of two years how much has each saved?
3. Wanting to prepare three doses of a powder, each to contain $\frac{3}{4}$ grain, by crushing $\frac{1}{64}$ grain tablet triturates, how many of the latter should the druggist use?
4. How much water must be added to 1 gallon of 90 per cent. alcohol to reduce it to 82 per cent. alcohol?
5. A druggist paid \$2.40 per thousand for envelopes, which came in packages of 25. At what price should he sell a package to make a profit of 66% per cent.?
6. In order to make a pint of chloroform and a pint of ammonia water balance when placed on the two sides of a pair of scales, what weight must be placed on one of the pans?
7. A druggist bought goods for \$8 a dozen and sold them at the rate of \$1 each. (a) What percentage (gross) profit did he make on the sale (b) and what percentage of the selling price was (gross) profit?
8. If the cost of doing business is reckoned as being 20 per cent. of the gross sales, is there profit or loss in paying \$4 a dozen for goods and selling them at 40 cents each?
9. If cigars cost \$35 a thousand and sell at the rate of 6 for 25 cents, how many, out of a box of 50 may be smoked "on the house" by clerks, physicians and ordinary dead-beats before prospective profit becomes actual loss?
10. What proportion of alcohol and what proportion of water should there be in a diluted alcohol selling for \$2.40 a gallon, in order that the alcohol itself (95 per cent. by volume) be made to bring \$3.60 a gallon, taking no account of shrinkage.

Answer to December Questions.

1. 7.48+.
2. 52.87+.
3. About 38½ ounces.
4. (a) 893 grains; (b) and (e) 15.415+ fluid ounces.
5. 9.
6. 15 minims.
7. 22.82.
8. Proprietor, \$630; head clerk, \$547.14; junior clerk, \$542.14 (52 weeks and 1 day in a year).
9. \$10,038 98.
10. 1 pint.

H. J. B., Massachusetts, wants to know how we arrived at the answer to example 7 in the issue for last November, which reads as follows:

Having a jug containing a small quantity of 20 per cent. ammonia water which he wishes to fill, and having only 10 per cent. and 28 per cent. ammonia water with which to do the filling, what proportion of this must the druggist use?

According to the rule of alligation we find the difference between the desired percentage and the stronger solution, which difference represents the number of parts of the weaker solution to be used; and the difference between the desired percentage and the weaker solution represents the number of parts of the stronger solution to be used. In this case this means 8 parts of the 10-per cent. solution, and 10 parts of the 28-per cent. solution. To prove that this

is correct let us see what results we get by mixing the indicated quantities of the two strengths:

$$\begin{array}{rcl} 8 \text{ parts of } 10\% & = & 80. \\ 10 \text{ parts of } 28\% & = & 280. \\ \hline 18 \text{ parts of the mixture} & = & 360. \end{array}$$

By dividing 360 by 18 we get 20, which is the desired percentage. Instead of 8 and 10, we set down 4 and 5 in one answer, as being simpler; just as, in working fractions, for instance, if an answer came out $\frac{25}{50}$ we should set it down as $\frac{1}{2}$.

Restoring Old Engravings.

In reply to a querist, the *Pharmaceutical Journal* says that to restore old and discolored copper-plate engravings, wash the sheet on both sides by means of a soft sponge or brush with water containing 4 per cent. of ammonium carbonate, and rinse the paper each time with clean water. Next moisten with water with which a little vinegar has been mixed; rinse the sheet again with water containing a little chlorinated lime, and dry in the air preferably in the sun. Another plan used for the restoration of old prints that have turned yellow is to wash them carefully in water containing a little sodium hyposulphite, and then dip them for a minute in diluted solution of chlorinated soda (say, 1 in 40), finally washing thoroughly in running water. Solution of hydrogen dioxide may also be used, applied by pouring on the print placed in a shallow vessel. The whole is then exposed to a strong light for some time. If, after treatment by any of the above described methods, the prints have become too white, they should be immersed in a bath containing a weak solution of isinglass or glue colored suitably with coffee grounds or other yellow coloring matter. Finally, the damp sheet should be stretched on a drawing board and allowed to dry spontaneously in a moderately warm, dry room.

Electricians' Test Paper.

A new test paper to distinguish the negative and positive wires in an electric circuit is made by saturating strips of filter paper with the following solution and allowing them to dry:

Phenolphthalein	1 gramme.
Sodium sulphate.....	10 grammes.
Water	100 c.c. (mils).
Alcohol	15 c.c. (mils).

Dissolve the phenolphthalein in the alcohol and mix with the solution of the sodium sulphate in the water.

This paper turns red when touched with a negative pole.

Deodorizer for Dwelling Rooms.

According to the *Bulletin General de Thérapie* a few drops of the following mixture placed on a plate in a room will effectively deodorize the atmosphere:

Camphor	20 grammes.
Chlorinated lime.....	50 grammes.
Alcohol	50 grammes.
Oil of eucalyptus.....	1 gramme.
Oil of cloves.....	1 gramme.
Water	58 grammes.

Mix in a capacious vessel kept cool.

Correspondence.

Short, timely articles upon subjects of interest to pharmacists are solicited for this department. In order to be in time for publication in the issue of a given month, they should be in the editor's hands on the fifteenth day of the month previous. Anonymous communications will not be published; but if the author expresses a wish to have his name withheld, this wish will be scrupulously regarded and his letter considered confidential.

Mr. Lascoff's Paper on "Difficulties in Dispensing."

New York, January 15th, 1911.

To the Editor of THE DRUGGISTS CIRCULAR:

In your January number [page 19] you published my paper entitled "Difficulties in Dispensing," which I read before the Kings County Pharmaceutical Society, for which I thank you. However, I must take exception to your editorial remarks and comments on several statements that I made therein. While I feel complimented for the interest you have manifested, I am quite sure my objections will be well taken; they are in the best professional spirit, and are to the interest of all concerned.

First: In reference to the objection to the use of magnesium oxide, I wish to say that this was taken up at an open meeting, and at that meeting I explained my reason for using magnesia in this particular instance. The reason for using the magnesia was to absorb the oily ingredients, and my suggestions were made to use a few grains only. I am fully aware that in May, 1888, you published in THE DRUGGISTS CIRCULAR the objection to the use of calcined magnesia. Personally I fully concur in the position outlined in that article, and you will notice in my paper which I presented before the American Pharmaceutical Association, that in the prescription which called for valiol, bromide [?] and magnesium oxide, I suggested that this capsule should be dispensed in dry form, simply by adding a few more grains of magnesium oxide, and, by all means not in mass form. In the particular paper which you published you will notice that I avoided the use of magnesia in making the tablets, for I was aware of the fact that the making of compressed tablets with magnesia would not permit the tablets to dissolve in the stomach. My attention was called to that particular prescription by Dr. White, who was the author of the same and who complained that the prescription had been dispensed by another pharmacist with the use of magnesia, and the result was that all the tablets were found in the dejecta undissolved. I used sugar of milk instead, and I found that the tablets gave very satisfactory results, and I exhibited some at the meeting showing their solubility. Taking all these facts into consideration, I was very careful [not (?)] to suggest the use of magnesia in large quantities in the terpinol prescription. What was necessary, was only a few grains to absorb the oil; this I still contend was the only way possible. If you know of any other method, I will be very happy to know it also. I spent many valuable hours in experimenting upon this very prescription and similar ones, and my conclusions were based upon such experiments. I tried almost every excipient known to pharmacy without result.

In regard to your note on the subject of ichthyol, I may say that there is sufficient data upon this drug to

warrant my method of evaporation rather than to substitute another salt instead of ammonium-ichthyolsulfonate, as I do not think this would be the proper spirit. I also know from experience that when ichthyol stands for any length of time, the water evaporates and the drug becomes denser, and assumes the same consistency as a pill mass; and furthermore, Merck's Index and the United States Dispensatory specify that when ichthyol is prescribed, the ammonium compound is meant only. There is no doubt, however, that by evaporation we obtain a suitable working mass and greatly reduced size and weight of the pill. I dispensed the sodium-ichthyol pills, which I exhibited at the meeting, and they were twice the size of the ammonium-ichthyol pills.

In your remark on aspidium, I fully agree with you that it is a toxic drug in itself. I therefore, called the attention of the members to the danger of dispensing it with castor oil, as my prescription called for, which mixture becomes absorbable and causes the poisonous effects. Whereas in dispensing in ordinary emulsion form it simply acts on the worm in the intestines, which is then driven off by following the dose with castor oil, given a good many hours after.

My object in writing this paper of practical experience is to open the door for discussion among the members, and I am very glad that you saw fit to discuss the matter. I would call your attention to the fact that every prescription which I discussed was illustrated and demonstrated before the pharmacists present. If you wish to be convinced by seeing them, I will gladly furnish them to you, as I have them still in my possession.

Thanking you for your interest, I remain, [etc.].
J. LEON LASCOFF.

[Out of differences of opinion honestly held come progress and understanding. Hence it is that we are pleased to receive from Friend Lascoff the foregoing defense of his position on some matters about which we differ with him. No carping criticism was ours, and no attempt to underrate Mr. Lascoff's ability as a pharmacist, thoughtful alike of therapeutic values and pharmacal aspects. Rather did we express our opinion on the moot points believing that it is our duty to stand between an author and his readers just as it is the pharmacist's to protect a patient when an error has been made by a prescriber. Pharmacists and journalists who fail to do their duty in this respect are equally culpable.]

Mr. Lascoff's elaboration of his use of magnesium oxide as an aid out of the difficulty presented in prescription VIII lessens somewhat but does not entirely do away with the pertinency of our criticism. The offending nature of the oxide is of course proportionate to the amount used; in the hands of a pharmacist as able as Friend Lascoff the danger of defeating the object of the prescriber might be reduced almost to the vanishing point; but we believe it could be precluded by using kieselguhr (which is far from the ideal thing) instead of the calcined magnesia.

As to the advisability of concentrating ichthyol by evaporation there is room for a wide difference of opinion. It has been our pleasure to listen to an extended discussion of the nature of ichthyoldisulphonic acid and its ammonium salt by expert chemists. From ideas so obtained, together with a knowledge of the instability of organic ammonium compounds in general, has come a disinclination to subject the sulpho-

ichthyol compounds to any such destructive influence as heat. Although the books tell us that ichthyol loses about one-half in weight when dried on a water-bath, we do not necessarily have to believe that the loss is water, especially when we consider that the accepted formula for this complex substance is $C_{28}H_{36}S_3O_8(NH_4)_2$ (Spanish Pharmacopœia). Many authors of works on materia medica studied in medical schools advise the use of sodium ichthyol for pills, and in our experience, when the attention of the physician is called to the physical and therapeutic advantages of this form of the drug, he usually concurs in the "substitution," much as he would in Friend Lascoff's suggestion that cocaine nitrate and not the hydrochloride be used in protargol solutions.

The toxicity of oleoresin of aspidium depends on absorption and idiosyncrasy. Sufficient of each may exist to render even an emulsion toxic, albeit the danger is greatly enhanced by the presence of a solvent for the filicic acid, and we think it well to emphasize the first named fact, especially as blindness sometimes results from the use of aspidium.—Editor THE DRUGGISTS CIRCULAR.]

Things As They Are.

Brooklyn, N. Y., January 12th, 1911.

To the Editor of THE DRUGGISTS CIRCULAR:

The pharmacist must be a man a little above the average in intelligence. He must be a business man. At the same time must also pretend to be a professional man. He must be familiar with Mrs. Grundy; also with Mr. Podsnap. He must please the girl by calling to her on the 'phone when her beau comes back from a party where he had a little too much of the raising of the glass, and must please the young man who buys his shaving soap at his store. He must please the father by sending a message to his wife that he will not be home for dinner because he is "detained at the office," and must send a message that mother can not get that particular brand of "patent" medicine that the department store advertised so very cheap, but "they have something just as good." The particularly successful druggist must know what medicine to give to the parrot if he does not speak as profanely as he used to.

"How do you do Mrs. S., what can I do for you?" Answer: "A bottle of cut-rate cast-a-roil, a box of cuticle soap, and five 2-cent stamps." The druggist puffs up and softly says to himself, "Can you beat it?"

The other side of this business of ours is this: If you have luck, ability, a growing neighborhood, no competition, two clerks, a junior and two porters, with your own work thrown in, you may have enough left after paying your household expenses—if they are not very high—to take your wife to the opera, but not too often. If this is not the situation, I should like to see a different, but true, description.

H. RUBIN.

[Since it is said that misery loves company, perhaps our friend Rubin and some others will be pleased to consider the fact that druggists are not alone when it comes to a question of facing and overcoming (if they can) the very fiercest kind of competition: we believe that some of the large department stores have rest rooms for their patrons, with music and free tea, and a place to check babies and other impedimenta.—Editor THE DRUGGISTS CIRCULAR.]

Wail from a Drug Clerk.

Near Philadelphia, January 11th, 1911.

To the Editor of THE DRUGGISTS CIRCULAR:

Perhaps you would like to hear what a clerk who hopes to be a Pharm. D. in May has to say on the subjects of clerk's hours and salaries and a "college prerequisite."

To demand a college degree is unjust to a man who has not the money to spend on a college education, but who has the ability to acquire knowledge from practical experience and books of reference, drug journals included. That a college education applied in the proper way is an excellent thing cannot be denied. A college-educated man is really fitted for a better position than slopping around a soda fountain, doing porter's duties, making preparations from printed formulas and processes, at the magnificent salary of \$18 per week, thirteen days in two weeks, with a full sixteen hours a day. The difficulties of prescription filling are greatly exaggerated. Through all this the clerk is expected to wear out excellent clothing. He is expected to be abnormally happy, wear that expansive grin, while watching his companions come home on the five o'clock train, through with their eight hours' toil, and on a Saturday afternoon, blow some of their salary in on a ball game. While on their way to the game they drop in, buy a cigar, pass out the cheerful comment, "I wouldn't have your job at fifty dollars a day," and then "beat it."

Oh, ye shade of Galen!

Drug clerks are not pessimists but they do want a square deal. The average clerk's salary is 18 cents an hour, a trolley car conductor's, 23 cents.

That the drug store proprietors have it hard in some cases is true. It is only due to their ignorance or lack of energy to take advantage of opportunities that are offered.

The physician, who is the evolution of a barber, and the dentist, who, as a scientist, looks upon a druggist as an inferior, professionally, jeer at a man who has earned his title of "doctor of pharmacy," and uses it. Why?

Prof. Schlotterbeck said that the best men were leaving the profession, and so am I unless I can find something worth while.

PHARMACY RAH RAH.

[There is no law in this country compelling a young man to enter the drug business or an old man to stick to it, but we understand that the street car companies in this city have difficulty in securing the services of honest men as conductors. Drug clerks willing to exchange their 18-cent positions for 23-cent ones will have no difficulty in doing so. The fact that they do not make the change is conclusive evidence that they consider themselves better off where they are. There is a law of supply and demand which regulates the price of all commodities, including the services of drug clerks. This law has fixed the salary of drug clerks at what they are. So long as the demand for clerks is supplied at the prevailing figures, just so long will these figures prevail. Should the demand increase, the figures would have a tendency to go up, but this tendency would be offset by an inrush of young men to get the greater salary. Should the demand fall off, the figures would have a tendency to

come down, but this tendency would be offset by the leaving of the ranks of drug clerks by many young men who would find other and more remunerative employment. In either case the supply and demand would adjust themselves and conditions would not be materially different from what they are now.

Perhaps one reason the title "doctor of pharmacy" is a subject of ridicule is because at the recent examination held by the Pennsylvania Board of Pharmacy, out of 110 candidates examined, all, or practically all, graduates of colleges of pharmacy (and presumably a large portion of them doctors of pharmacy, although we have not the figures at hand on which to base a positive statement as to this), 82, or nearly 75 per cent., failed.

Some men make fortunes out of the drug business, a great many make good livings, some eke out a miserable existence, and some fail entirely. Amend the foregoing sentence by striking out the word "drug" and substituting any other word used to designate a class of business, and the sentence would still be a correct statement. Success depends upon the man and not the business he is in; and, as a rule, successful proprietors of drug stores were once good drug clerks.—Editor THE DRUGGISTS CIRCULAR.]

Establishing Standards for Drugs Not Now Standardized.

Camden, N. J., December 30, 1910.

To the Editor of THE DRUGGISTS CIRCULAR:

The American Pharmaceutical Association's committee on standards for unofficial drugs and chemical products are engaged in formulating standards for a number of articles not now recognized by the United States Pharmacopœia. Many of the articles which they are standardizing will, no doubt, be admitted into the revision of the National Formulary, now in process, and if the standards as promulgated by this committee are adopted in that revision, then they will become the legal standards of the country.

It has been suggested that a list of the monographs immediately under consideration should be published in the pharmaceutical journals so that the importers, manufacturers and dealers who are interested will feel at liberty to make suggestions as to the proper standards to be adopted. It is the desire of the committee to be absolutely fair and accurate as far as possible in our work, and we welcome any suggestions that may be offered.

The following list of titles covers only those on which monographs are now before the committee: Absinthium, aconite leaves, adonis, albumen (dried blood), albumen (dried egg), althea leaves, ammonium hypophosphite, angelica root, angelica seed, areca, arnica root, barium peroxide, boldo leaf, bromauric acid (commercial gold tribromide), buckthorn berries, cacao (cocoa), cactus grandiflorus, calamine, calcium glycerophosphate, calcium peroxide, canella alba, cascarilla, caulophyllum, celery seed, centaury, coal tar, cocculus indicus, condurango, coto bark, cudbear, diacetyl morphine, diacetyl morphine hydrochloride, dextrin (white), dextrin (yellow), euphorbia pilulifera, foenugreek, formic acid, formic acid (concentrated), kava kava, kieselguhr, kola, lead carbonate, oil of cardamom, phenolphthalein, poppy capsules, potassium glycerophosphate, quince seed, red gum (eucalyptus, kino), rennin, saffron, sherry wine, strontium arsenite, thuja (arbor vitae), tonka

bean, Venice turpentine, white pine bark, and zinc peroxide.

It is the intent to publish, from time to time, supplemental lists as new articles are taken up for standardization. In order to give the desired publicity to our work, we respectfully request the pharmaceutical press to give sufficient space to present this matter and request that any suggestions as to the proper standards to be adopted should be sent to the undersigned.

GEORGE M. BERINGER,
Chairman.

A Little Evening Song.

Chicago, January 17th, 1911.

To the Editor of THE DRUGGISTS CIRCULAR:

Your article "Retrospect of a Decade" has just been read and leaves my mood in a B-flat key, like Chopin's Funeral March, and I recall Goethe's little verse, written in that key:

Weber allen Gripfeln
Ist Ruh;
In allen Wipfeln
Spuerert du
Kaum einen Hauch;
Die Voegelein schweigen in Walde.
Warte nur, balde
Ruhest du auch.

What names will appear on the roll of the dead in 1921?
WILHELM BODEMANN.

[A liberal translation of the foregoing lines into English verse by Aytoun and Martin, reads:

Peace breathes along the shade
Of every hill;
The tree-tops of the glade
Are hushed and still;
All woodland murmurs cease,
The birds to rest within the break are gone.
Be patient, weary heart, anon
Thou, too, shalt be at peace.

Editor THE DRUGGISTS CIRCULAR.]

Physicians not a Menace to the Public.

John F. McAnulty, Jr., a doctor of pharmacy who is a drug clerk at Trenton, N. J., writes that when the January issue of the CIRCULAR reached him, he looked carefully through its pages. When he came to the correspondence columns he read of the happiness found in a drug clerk's life by Mr. Wray, of Virginia, and was pleased to say that he agrees with his fellow clerk. But with Mr. Merin he could not agree. Mr. Merin is the writer of the jeremiad printed on page 39 under the title "Physicians as a Menace to the Public." Upon reading this, Mr. McAnulty was astonished and indignant, but these feelings gave way to one of pity, as he expresses it, for the poor mortal who had "exploded" in such a childish fashion. He says he has worked in a number of stores and has waited on the best and the poorest trade, city and country, and so speaks with a feeling that no one can justly say that he knows nothing of his subject. He does not recall that he ever filled a prescription written by a physician for the purpose of supplying cocaine or morphine to a "fiend"; and adds that physicians are sometimes blamed for what pharmacists do because many newspapers print "Dr." in front of the name of a pharmacist who is jailed for cocaine-selling.

Mr. McAnulty speaks of the examinations physicians have to pass in chemistry, materia medica, etc.,

before they can get license to practice medicine, and refers feelingly to the dangers which they voluntarily encounter in their efforts to eradicate epidemics, and the large amount of work they do among the poor without the hope of pay.

Official Books in New York Pharmacies.

Brooklyn, N. Y., January 17th, 1911.

To the Editor of THE DRUGGISTS CIRCULAR:

Attention is called to the change of rules by the new State board of pharmacy and approved by the regents that every pharmacist and druggist in the State of New York must possess a copy of the latest edition of the United States Pharmacopœia and National Formulary.

The rule of the old board required a copy of the Pharmacopœia or some publication embodying its text in full. Rule 7 of the new board reads as follows:

Every pharmacy and drug store shall own and have on file at all times the eighth decennial revision of the Pharmacopœia and the latest edition of the National Formulary, and no registration certificate shall be issued till it complies with the rule.

It is of course also advisable to have a dispensatory as a reference book in a well regulated pharmacy. As this rule is very likely to be enforced I earnestly advise your readers to supply themselves with copies of the two official books, which may be readily obtained through the wholesale trade. Let us hope that other State boards will do likewise.

OTTO RAUBENHEIMER.

New Process of Color Photography.

A patent has been granted in Great Britain for a new process of reproducing colors by photography. The technic is described briefly in the *Journal of the Society of Chemical Industry* as follows: A screen for color photography is prepared by superimposing on a transparent surface, three transparent layers, one layer being ruled with parallel lines, and the others with dots to fill the spaces between the lines; the layers are colored orange, green, and violet respectively, and the screen is provided with guide-marks. An opaque "support" is then prepared to correspond exactly in ruling to the screen, the patterns being colored with the colors complementary to those on the screen. This support is covered with a silver bromide-gelatin emulsion. The object to be reproduced is photographed on a photographic plate through the screen, and the resulting negative is printed in the usual manner on a support prepared as above, which is then developed and fixed. The result is a reproduction in color of the original, but covered with a series of black dots consisting of reduced silver. These are bleached by means of a 1 to 2.5-per cent. solution of corrosive mercuric chloride, and the print is dried, without washing. Cupric chloride, or other chloride capable of converting silver into its chloride, may be used in place of corrosive mercuric chloride.

The increasing traffic in opiates and narcotics in spite of the efforts of the authorities to curb their sale, makes it obligatory on us to avoid even the appearance of evil, and absolutely to refuse to countenance the sale of such drugs except through the prescription department.—W. M. Bowman, in his address as chairman of the section on commercial interests at the 1910 meeting of the American Pharmaceutical Association.

Notices of Books Received.

DEUTSCHES ARZNEIBUCH 5 Ausgabe 1910. Octavo; three-quarter leather; xxxviii + 680 pages. 5.70 mark. Berlin: R. v. Deckers Verlag G. Schenck Königlichen Hofbuchhändler. [New York: G. E. Stechert & Co. \$2.]

On the first of January the practice of pharmacy in the German empire became amenable to this new (the fifth) edition of the German Pharmacopœia. The fifth edition is neither a padded nor a skeleton pharmacopœia, but a sane pharmacopœia, a mirror of the present trend in pharmacy. Owing to the admission of seventy-seven new articles the size of the book has been increased by 164 pages; its general appearance is much like that of its predecessor.

There is a preface of twenty-four pages giving the history, the list of admissions and deletions, the changes in nomenclature and a statement of the scope. The boundaries of official matters pharmaceutical have been extended for the benefit of the student, without, however, giving to the official book the character of a text-book. Following the preface is a chapter occupying fourteen pages treating of general determinations. This treatise is in two parts: *a*, General Technical Explanations deals with solutions, solubility, specific gravity (based on 15°C./15°C.), temperature, optical rotation, micrometric measurements, fineness of powders, sterilization, and the normal medicine-dropper of the Brussels Protocol, which delivers 20 drops of distilled water to 1 gramme, at 15°C.; *b*, Analytical Methods is made up of detailed instructions for determining melting points of chemicals and fats, solidifying points, boiling points, and ash-contents. Practical examples are given in the determination of the acidity of fats, of the acid number of waxes, resins and balsams, and of ester-, saponification- and iodine-values.

The matter devoted to official descriptions and formulas occupies 575 pages. The monographs on drugs are much more explicit than in former editions. Assay processes are given for the standardization of the principal vegetable drugs, and microscopic analytical directions and also ash standards are given in many instances. The monograph on semen strychni (*nux vomica*) occupies three and one-half pages; those on radix ipecacuanhae; opium, cortex chinae (*cinchona*) and folia hyoscyami, three pages each; and those on rhizoma rhei and tubera jalapae, two pages each. For a number of the vegetable drugs, strength rubrics are given; for example cantharides is required to contain at least 0.8 per cent. of cantharidin; ipecac, 1.99 per cent. of alkaloids.

In the monographs on chemicals an innovation has been introduced: the giving of the chemical or graphic or even structural formula and also the atomic or molecular weight. As to the purity rubrics the new book goes further than the United States Pharmacopœia, as witness the statement under ammonium bromatum: "contains at least 97.9 per cent. of ammonium bromide corresponding to 79.9 per cent. of bromine." The chemical monographs are also very complete, that on ferrum pulveratum, for instance, occupies more than a page. Apparently the compilers had no trepidation concerning the use of trade-marked and popular names; among the official Latin names the following stand out prominently: *Anæsthesin*, *novocain*, *pyramidon*, *stovaine*, *sulfonalum*, *tannalbin*, and *vaselinum*; among the official German titles and recognized synonyms are

aspirin, dionin, duotal, heroin hydrochlorid, lactophenin, protargol, and trional.

Galenical preparations, the pride of the apotheker, are, as formerly, described, but such expressions as "sweet taste" or "pleasant odor," etc., have been omitted. One very important factor has been added relative to preparations, and that is a strength rubric, or statement of the amount of the medicament in the finished product. Much space is saved by the use of type processes. There are good directions for preserving and storing preparations. The analytical methods, usually volumetric, have been carefully revised and are quite voluminous in several instances.

Anti-diphtheritic and anti-tetanic serums and Koch's tuberculin are official.

In the appendix is a table of atomic weights; a list of reagents and volumetric solutions; a table of comparative specific gravities at from 12° to 25° C.; a list of biological reagents; a table of maximum doses, single and daily, any intentional excess of which must be indicated by the prescriber; tables of poisons and potent medicaments; and a list of synonyms.

THE STUDENT IN PHARMACY, Embracing Theoretical and Practical Pharmacy; a Guide for Studying the Preparations of the Pharmacopœia and National Formulary Which Are Here Included only by Reference. The Book Is Intended To Direct the Student in His Studies and as a Convenient Review for the Pharmacist, Containing also Nearly Four Hundred Board of Pharmacy Questions with Answers, Convenient Formulas and the Pure Food and Drugs Act with Rules and Regulations. By E. G. Eberle, Ph. G., A. M. (Hon.) Volume I. Octavo; Cloth; 224 pages, illustrated. \$2. Dallas, Texas: *The Southern Pharmaceutical Journal*.

Somewhere between the more pretentious textbooks of pharmacy and the "quiz compends" one would place this latest contribution to the literature of practical pharmacy. Its scope is quite well set forth in the sub-title. Its style is that of the lecture: simple, conversational. The author has omitted all detailed reference to the text of the United States Pharmacopœia and the National Formulary because, as he states, the student should have access to these direct.

There are doubtless many who will be glad to have the answered board questions which cover forty-five pages of the book. Many others will perhaps find useful the tables of percentage solutions, alcoholic content, dosage, incompatibilities, etc., as well as the prescription hints.

MISSOURI BOTANICAL GARDEN; TWENTY-FIRST ANNUAL REPORT. Octavo; cloth; 195 pages, gilt tops; 32 plates. St. Louis: Published by the Board of Trustees. 1910.

AMERICAN SOCIETY FOR TESTING MATERIALS YEAR-BOOK 1910. Octavo; cloth; 308 pages. Philadelphia: Published by the Society. 1910.

PROCEEDINGS OF THE NEW HAMPSHIRE PHARMACEUTICAL ASSOCIATION at the Thirty-seventh Annual Meeting, Held at Hooksett, June 28th and 29th, 1910.

PROCEEDINGS OF THE NORTH DAKOTA PHARMACEUTICAL ASSOCIATION at the Twenty-fifth Annual Meeting, Held at Fargo, August 9th to 11th, 1910.

PROCEEDINGS OF THE MINNESOTA PHARMACEUTICAL ASSOCIATION at the Twenty-seventh Annual Meeting, Held at Tonka Bay, June 21st to 24th, 1910.

PROCEEDINGS OF THE VERMONT PHARMACEUTICAL ASSOCIATION at the Seventeenth Annual Meeting, Held at Lake Bomoseen, July 5th to 7th, 1910.

THE EFFECTS OF HASCHISCH NOT DUE TO CANNABIS INDICA. By M. V. Ball, M. D. Reprint from the *Therapeutic Gazette*, Detroit, Mich.

PROCEEDINGS OF THE MAINE PHARMACEUTICAL ASSOCIATION at the Forty-third Annual Meeting, Held at Castine, July 6th and 7th, 1910.

TWENTY-FIFTH ANNUAL REPORT OF THE MASSACHUSETTS BOARD OF PHARMACY for the Year Ending November 30th, 1910.

THE PRESERVATION OF DRUGS; Bulletin No. 150, Kentucky Agricultural Experiment Station of the State University, Lexington, Ky.

TWENTY-EIGHTH ANNUAL REPORT OF THE ILLINOIS BOARD OF PHARMACY for the year 1909.

Some Election Returns.

When the sixty-second congress convenes there will be missing from the ranks of the representatives that fervent favorer of a federal pharmacopœia and arbiter of elegance in diction, H. M. Coudrey, of Missouri. He alone of all those who have of recent years had largely to do with attempts at the federal regulation of pharmacy has not been returned by his constituents.

The roll of the senate at the next congress will contain these names of interest to pharmacists: S. M. Cullom, W. B. Heyburn, and R. L. Owen. In the house the following men who have been in the pharmacal eye will again answer the roll call: F. D. Currier, D. J. Foster, J. R. Mann, and S. E. Payne.

Several New York State law-makers with a penchant for pharmacal measures failed of re-election to the present session of the legislature. Among the names missing from this year's roll is that of the doughty champion of Governor Hughes' desires in matters pharmacæutic, R. S. Conklin. Others who are not enrolled in the records of the assembly are I. J. Joseph, the combatter of corporation pharmacies, and Druggist G. H. Whitney. Senator H. W. Hill is also among the missing. There still remain J. J. Frawley and J. M. Wainwright in the senate, and Druggist C. F. Brown, W. S. Coffey, J. A. Foley, and A. E. Smith in the lower house. The one-time familiar name of L. A. Cuvillier, a prolific father of labeling bills, again appears on the legislative rolls of this State.

New Medical Organization.

Now comes the American Medico-Political Reform League, launched at Chicago, for the purpose of procuring the establishment of a national bureau of health, "divorced from politics and gang control"; the establishment of a uniform standard of medical requirements in the several States of the Union; encouragement and co-operation with all movements and legislation for food reform which shall be fair and impartial and founded on scientific premises; encouragement of political preferment of physicians as tending to secure just representation for the profession; encouragement of measures for the correction of hospital and dispensary abuses.

DRUG STORE ADVERTISING

By M. P. GOULD, of New York

In this department some of the fundamentals of successful drug store advertising will be expounded each month. The aim is to correct errors of advertising and establish the most profitable and advisable methods of building up retail drug trade by means of the powerful influence of advertising.

The Wastefulness of "Near-Advertising."

There is one fault in retail advertising which should be corrected. It is a fault common to almost all retailers. The druggists lose by it, the grocers lose by it, the hardware dealers lose by it, the haberdashers and the shoe dealers lose by it. Fortunately for the department stores they have already eliminated this form of waste to a great extent.

This waste that I refer to has risen very naturally. One example: Here is a retailer who has a very good customer. This customer has been buying all of her goods from him for years. She happens to be quite a church woman, she happens to be a willing and earnest worker. Her church decides to get up a bazar in order to raise some money for some charitable work, and the church, knowing that she spends considerable money in various stores about town, they vote for her to take in charge the getting up of a "program." So she goes to a printer and gets him to make up a blank program of the size she hopes to finally produce. She writes in on certain pages of this blank book the program itself. Then she goes to the store where she buys most of her goods and gets the proprietor to put a full-page advertisement in this program. She being a good customer of the store and the proprietor wanting to be friendly to her and really wanting to help the cause of the church pays her \$10 for a page advertisement. With that as a lever she goes down the line and persuades one after another of the storekeepers with whom she trades to take pages, half pages and quarter pages in this program. After she has rounded up all of the stores where she trades, with all of their contracts as a lever she starts after the other retailers and also the hotels, the street-car company, the lighting company, the water company; and so she goes the rounds and they all contribute.

Before she gets through she has altogether about twelve pages of advertising matter, and three pages of program. As a result of her slaving for two weeks she has got perhaps \$120 worth of advertising, but she has to pay \$90 for printing the program, consequently she turns over to the bazar committee \$30 profit. In other words, only one-fourth of what the merchants gave goes to the church, the other three-fourths goes to the printer.

If it always worked out in this way it would not be so bad. But in a majority of cases it turns out that the program advertising barely pays the expenses or possibly brings in only three or four dollars profit. Then the merchants have spent their good money only to have but one-tenth of it go to the church.

In short, it is misdirected charity. If the merchants want to give money to charity, they should give it to charity; not give three-fourths or nine-tenths of it to a printer and one-fourth or one-tenth to charity.

If all of these program propositions were as good as the one mentioned above it would not be so bad; however, the fact is that for every "ball of the Ash-carters' union," every "tin-pan athletic meet," every "fraternal festival," every "street fair," every "orphans' home benefit," every "high school dance," every "seaside association" and for everything else that people can think of, somebody comes along with a program for the merchants to advertise in.

It does not pay the merchant. That's the opinion of 99 out of every 100 retailers. They count all such advertising as this sheer waste, and they know it is. In fact, I have never talked to but one man who did not say that this kind of advertising was a pure and simple "hold-up." It is an advertising waste which most men want to get rid of.

In various places this waste has been overcome in several ways. For example the way large department stores overcome it is to have their directors pass a resolution for-

bidding the advertising manager from doing any advertising of the kind. Then when a customer of the store comes soliciting advertising the manager is very nice to her and he takes great pains to explain to her that "the directors" have passed a resolution forbidding his going into any advertising of the kind, and that his hands are tied. He assures her that he would like to help her, but he cannot do it. She goes out of the store feeling that this store is a good friend of hers and that this man would like to give her the advertising if he could, but "the directors" — whoever they may be — have tied his hands, so that he cannot. She does not get angry at the store; "the directors" are impersonal beings somewhere who have made it impossible for her to get an order out of the advertising manager.

Another way that this graft has been overcome is by all the retailers in a town getting together and forming an association which they call "the board of trade" or "merchants' association" or something else of that kind. This merchants' association meets and votes that each member contribute a certain amount to charity and for charitable advertising and that the secretary of the association is to dispense that fund. Each merchant is then supplied with a sign saying that all program advertising is in the hands of Mr. So-and-so, secretary of the "merchants' association." When the lady customer-solicitor comes into a store the proprietor explains to her that he is a member of the merchants' association; that the merchants association has voted that advertising of that kind she has to dispose of shall be taken care of by the secretary; and that she should call on the secretary and he will go into the matter with her. The solicitor finds that this man in justice to the other merchants abides by the rules of the association; and when she calls on the secretary, of course, the secretary's hands are tied because of the lack of an appropriation. So the whole matter is killed. Thus the individual merchant does not lose the good will of his own customers.

Still another way to get rid of it is for the merchant to make his appropriation for advertising at a certain time in the year; to lay out a schedule of just what he will do for the whole year. (This is a good thing to do anyway: it is what every merchant ought to do.) Now, when the lady customer comes in soliciting advertising for the "program" the merchant is

The handiest of all in emergency needs, a good Hot Water Bottle is a modern necessity.

Hot Water Bottles

Perfect quality, new models, right sizes, longest wear, greatest satisfaction and economy if you buy here.

very nice to her. He explains to her that at the beginning of each year or at a certain time each year he plans out his advertising for the entire year; that he buys his advertising just as he buys his goods; that he tries to buy the kind of advertising that will do him the most good; and that his contracts have all been placed. He can explain that were it not for these contracts he would gladly help her out; but since he must live up to his contracts, and since he has already outlined as much as he can afford it is impossible to help her. This talk is effective with most women and others who are soliciting program advertising.

Undoubtedly there are some merchants who still believe that this kind of advertising pays. Undoubtedly they have not the nerve to cut out this program advertising. There are certain small merchants who still look upon advertising as a sort of "free drink," "complimentary box of cigars," "hand-out," "bribe," "present" to get or hold the good will of some friend. The day of such belief is past or ought to be. Any man who spends money for program space and looks upon it as advertising is simply throwing his money away. If he wants to spend money in that way he ought not to call it advertising; neither should he call it charity. If he wants to give to charity he ought to give to charity, and not in such a way that 75 per cent. or 90 per cent. sticks to the fingers of the people who are handling it before it gets to charity. If I want to give a dollar to a needy man I don't throw ninety cents in the street and give the man ten cents, but I go right to that man and give him the dollar: I see that the whole one hundred cents goes to the man that I want to get it.

It is an old and exploded notion that handing out a "program advertisement" here and a "hotel blotter" there and an "association year book" somewhere else brings business. It does not. There are any number of merchants in America who can show that it does not bring in enough business to "shake a stick at."

Furthermore there is something else—quite the reverse—that spending money in such so-called advertising does do. It cripples the merchant in his appropriation for real advertising. For example, suppose a man is doing a business of \$20,000 a year, and he decides that he can spend 2 per cent. in advertising, which is \$400. If he spends \$200

of that \$400 with his local newspapers he can carry on a progressive campaign of advertising which will increase his business. Then if he spends the other \$200 in live advertising material: strong circulars, post cards, letters and other direct mail matter he can back up his newspaper advertising to such an extent that he is assured a growing business. Suppose, however, that he takes \$100 every year away from his newspaper advertising and spends it on space in programs and similar advertising which does not bring him any returns. Then he loses on his newspaper advertising because it does not pay him any more and he wastes on the program advertising so that he cripples himself, prevents his business going ahead, wastes his trade and lets his shrewder competitor get ahead of him. Or if he takes \$100 out of his \$200 appropriation for circulars, store signs, window displays, letters, post cards, etc., and puts it into program advertising he then cripples his direct mail work, his sign work and his display work so that all of them are far below par, and not very productive, and his program advertising is not productive either. So, by spending his advertising appropriation on wasteful and unproductive methods, he prevents himself from doing advertising that would be productive.

This is really the important part. I hate to see any merchant fail. I like to see him spend his advertising appropriation, even though he only spends \$30 or \$40 a year, in such a way that every cent of that money pulls the biggest amount of business that it can pull.

Efficiency, the greatest possible efficiency, is the thing that the business interests of America are now giving their attention to. We are all learning that in the development of business in this country a great many useless, wasteful and ineffective customs have grown up. The "discovery" of the present day is that there are such wasteful and ineffective customs. Knowing that there are, it is now our business as a nation to eliminate those things which impede our progress. Exactly the same argument holds good for the small retailer. If he can find a form of lighting that costs him one-half what he is now spending and furnishes just as strong and just as bright a light, it is his business to make that improvement. If he finds that by taking out his old windows and putting in a new front, and then making a good display of merchandise in his windows, he can increase his business, then it is his

Next Door to You— —No Matter Where You Live

Your telephone directly connects you with our store at all hours of the day and night. If there is anything you want in a rush—or not—any time, just ring us up, and give us your order; we will deliver the goods anywhere. This brings our store right to your door just when you may need us most, in time of accident or emergency, or when the weather or anything else prevents a trip to the drug store. Have us call for your prescriptions, fill them and return them "rush." It costs you nothing extra, at all.

(Name and Address)

business to put in this new window and employ new methods of display. If he finds that his soda fountain is not giving satisfaction; that it is unsanitary; that people do not come to his fountain as they do to other fountains in town, then it is his business to put in a new fountain and new methods and new help until he gets the trade coming to him.

Just so with advertising. If a merchant finds that the methods of advertising he has been employing do not bring results, then he ought to drop these methods like a "hot potato." The trouble with most of us is that we are bound by custom, by habits, by traditions, by fear of making mistakes, by a foolish blind adherence to methods that are not succeeding.

A few days ago I had the pleasure of attending the annual meeting of the New York Zoological Society at the Waldorf-Astoria Hotel. At that meeting "Buffalo Jones" showed some moving pictures of Western cowboys roping wild animals in Africa. The film showing the roping of a rhinoceros was one of the most appealing things I ever saw, and it was pitiful. There was a great beast with twenty-six-inch horns. The moment the first cowboy rode up close to him he lowered his head and with perfect confidence in his own strength started after that horse and rider. The cowboy rode just a little ahead of the rhinoceros while cowboy number two came up from the rear, swung his lasso, and got the rhinoceros by one front foot and dumped him on his head. The rhinoceros got up raging because that thing—whatever it was—had happened to him. He turned and started after the nearest horse and rider who happened to be the one that had a rope attached to his front leg. Meanwhile the moment he was dumped on his head rider number three galloped up close behind him and when the "rhino" started after cowboy number two, cowboy number three roped one of his hind legs and tripped him up again. By that time the beast was simply blind with rage. He jumped to his feet and, recognizing that he was in a good place to get away from, started to run away. That was exactly what cowboy number one thought he would do and he was sitting there calmly on his horse waiting for that move, and swung his rope around one of the beasts other legs. There they stood; the rhinoceros panting and blowing and helpless with a cowboy and horse in three different directions, each with a rope fastened to a different leg. As I watched that poor bewildered beast, whipped and helpless, I could not help thinking that this is exactly what a great many merchants do. They rush at things. They get set on doing certain things in a certain way and they use up all their strength just as that poor, deluded rhinoceros did, until finally they stand whipped in just the same way.

Just what in these articles I have tried to do for the last twelve and a half years is to point out to retailers various fundamental methods of eliminating waste from their advertising and from their entire business, and introducing new methods which have proven their value as business-getters and business-holders. In this month's contribution is pointed out a method of handling advertising which if followed out would do much towards making the retailer's advertising more successful and thereby increasing his business and his profits faster and to a far greater extent.

Nelligar's Greeting.

As New Year cards Nelligar's Pharmacy, Norfolk, Va., sent out neat booklets, with fancy backs so folded and attached as to provide a hidden pocket in which was placed a bit of sachet powder. On one page of the booklet is a calendar for 1911, and on the opposite one appears this greeting:

"Just a little souvenir to remind you that we appreciate your patronage and cordially invite you to our store, where we hope to have the pleasure of supplying your wants in our line during 1911. With the season's greetings, sincerely yours, Nelligar's Pharmacy, Fred. D. Nelligar, proprietor, corner Church and Charlotte streets, Norfolk, Va."

Getting the Customer's Confidence.

The advantage of the personal service of the neighborhood drug store and the dependability of the druggist's advice are introduced by E. C. Webb, the manager of the Universal Drug Shop, Seventh avenue and One Hundred and Forty-first street, this city, in a recently distributed letter addressed to the women of his neighborhood. The

burden of the communication was the "pure, prompt, accurate" policy of the prescription department.

Mr. Webb uses the package slip medium for much publicity. One of his favorite slips is devoted to the superiority of the solution of magnesium citrate put up in the laboratory of the store. This excerpt will show that it has the right ring:

The citrate of magnesia made from the commercial variety of magnesium carbonate is more active than the pure, but this additional activity is due to the irritating influence of its impurities, and its constant use would have a harmful effect on the intestines and stomach.

A Philadelphia Druggist and the Red Cross Stamp.

For twelve days prior to Christmas Israel Subin, of Philadelphia, devoted one entire window to a display of the red-cross Christmas stamps. In the center of the trim and at each side were large framed pictures and signs such as have been used in the tuberculosis crusade. In the center of the window hung a large red-cross and in the background were figures of four red-cross nurses holding trays filled with red-cross stamps. Stickers on the upper part of the glass called the attention of the passers-by to the sale of these stamps, the price of them and the cause to which the funds accruing would be devoted.

Mr. Subin says that in addition to helping a very worthy cause by increasing the sale of the stamps, the display was resultful as an advertisement for the store through the favorable comment which was created. The display was supplemented by circulars anent the good purpose of the sale of red-cross stamps.

To Sanguard Match Factory Workers.

In anticipation of prohibiting legislation which seemingly would soon have crowned the efforts of the American Association of Labor Investigation, the use of white phosphorus in the manufacture of matches is to be discontinued in this country, by virtue of an agreement among the manufacturers. This agreement has been made possible by the action of the so-called "match trust" in voluntarily surrendering its patent rights to the use of phosphorus sesquisulphide, a harmless substitute for the white variety.

The control of the patent rights, for which it is said \$100,000 was paid, has been given to three trustees: J. H. Ralston, counsel for the American Federation of Labor; Prof. E. R. A. Seligman, of Columbia University; and Charles P. Neill, Commissioner of Labor.

Validity of "Rexall" as a Trade-Mark.

In a recently recorded judgment the Massachusetts supreme court sustained the contention of E. M. Riggs & Co., of Haverhill, that the use of the word "rexall" on medicinal preparations was an infringement of their trade-mark rights to use the word "rex," which were established thirty-three years ago. The case has been referred to a master for the computation of damages. These, it is reported, will amount to close to \$1,000,000.

It is stated that the defendant, the United Drug Company, will take the case to the full bench of the supreme court on a bill of exceptions calling for a review of the legal points involved.

Legal Status of A. M. A. Officers Questioned.

Dr. G. F. Lydston, of Chicago, who has frequently engaged in wordy conflict with the powers that be in the American Medical Association, has filed a bill petitioning the State's attorney of Cook county, Illinois, to begin quo warranto proceedings against the trustees of the association. The petitioner alleges that the A. M. A. is being operated as a "close corporation, autocratic and despotic," and that the present officers are not legally entitled to their positions because the last election was not properly conducted.

Another conviction for impersonating another in taking regents' examinations has been secured. The guilty student was sentenced to serve nine months in the penitentiary.

Prof. John Uri Lloyd is a member of the grand jury in session at Cincinnati, probing, among other things, illegal voting.

SODA WATER DEPARTMENT.

Something Seasonable in the Window.

At least one window display a month should be devoted to the soda water department. That means that with two windows and weekly trims the department gets a one-eighth share of this sort of publicity. Special drinks, while not to be the only ones featured in the window displays, lend themselves to more diversified trims than do the staples. A special drink on a special occasion affords a double opportunity for working in a paying window show; hence the following suggestion for Washington's Birthday:

In the first place the special drink is to be called cherry chips. It consists of 1 ounce of cherry syrup, $\frac{1}{2}$ ounce of orange syrup, and sufficient hot water to fill a hot-soda mug, topped off with whipped cream and accompanied with a piece of crystallized ginger.

For the display, cover the floor of the window with green sawdust, and scatter over this a goodly array of chips from an old-fashioned wood-pile (the sort with bark on them). In the visual center (not the geometrical) of the green place a real or artificial stump having a freshly hewed appearance on top; stick a hatchet in this carelessly. That is the setting; most of this display is a matter of placards and phrases. Paint the name "cherry chips" in red lettering on the larger chips scattered about. Stand a placard against the stump with this wording: "A Favorite Cherry Tree Furnished the Fruit from Which *Cherry Chips* is Made." Another prominently placed card should have this legend: "The Truth about Cherry Chips Can't be Told, It Must be Learned through Experience." Hanging about variously should appear the following legends: "Cherry Chips: a Delight Washington never Knew." "Had Cherry Chips been Obtainable Washington would not have Thrown his Dollar across the Potomac." "For a Feeling of Comfort and Altruism Drink Cherry Chips."

As the background of this trim hang a portrait of Washington in the center with red-white-and-blue streamers stretching to the four sides.

A Glance Backward.

At first, soda water was a man's beverage. It was carbonated but not sweetened water, in demand for that "morning after" feeling. Gradually it was improved until women and children became the chief consumers of it. Now it has been still further improved until it again appeals strongly to the man portion of the population, while holding the allegiance of the women and children and gaining new friends among them.

When some of us older chaps were boys, soda water was drawn from a dog-house pattern of marble box on the counter, and consisted of syrup, strongly flavored with synthetic fruit essences, a deal of foam, and the regulation carbonated water. It was facetiously spoken of as "sweetened wind." At one time this kind of beverage sold for 10 cents a glass, but soon found its proper level among 5-cent goods.

Following this style of apparatus came the wall design, to use which the attendant had to turn his back to the customer. This style has since given way to the modern style of fountain built principally below the counter, with the draft arm extending up through the marble slab.

A generation ago—a score of years ago—a dozen years ago—even half the latter number of years ago—the soda water business was small compared with what it is now. Improved apparatus, a higher class of ingredients, a wider variety of things to tempt the palate and quench the thirst, the introduction of ice cream at the fountain, the evolution of the artistic dispenser, these and other things have made soda water what it undoubtedly to-day is, the great American beverage. Attempts to introduce this article into other countries have not been notably successful; but he would indeed be a brave man who would propose to deny the soda water luxury to the people of the U. S. A.

Push the drinks that pay, of course, but be sure not to push hard enough to shove the customer into your competitor's store. Every now and then make an attractive window display advertising the fountain.

Women frequently do not observe that a marble counter is wet or sticky until they have leaned upon it, and then explanations and apologies do not repair the damage.

Root Beverages.

Having been successful in making and dispensing root beer and ginger ale, a portion of which success he attributes to hints obtained from the CIRCULAR, W. C. Lane, of the Lane Drug Company, Goldsboro, N. C., sends a few suggestions as a token of his appreciation of the service this paper has been to him. They follow:

CONCERNING ROOT BEER.

Numerous formulas for making root beer extract and root beer syrup have appeared in THE DRUGGISTS CIRCULAR, the best of which I have found to be one by F. E. Dudman, printed in the number for June, 1908, page 262, but this is improved when changed as here indicated:

Root Beer Extract.

a. Methyl salicylate.....	12 drams.
Oil of sassafras, true.....	9 drams.
Oil of cloves.....	3 drams.
Tincture of ginger (U. S. P.).....	12 ounces.
Alcohol.....	enough to make 1 pint.
b. Citric acid.....	10 av. oz. 180 grains.
Water.....	enough to make 2 pints.

Be sure to use methyl salicylate as it gives a much better flavor than oil of wintergreen [maybe Mr. Lane used oil of birch, sold to him for true oil of wintergreen] and has the further advantage of being much cheaper. On the other hand, the true oil of sassafras does better than the synthetic. It is also necessary to be exact in measuring the ingredients, as any slight variation affects the flavor.

Root Beer Syrup.

Root beer extract, a.....	2 drams.
Root beer extract, b.....	4 drams.
Soda foam.....	4 drams.
Caramel.....	$1\frac{1}{2}$ ounces.
Syrup (U. S. P.).....	enough to make 1 gallon.

A Good Ginger Ale.

Ground ginger.....	2 oz. av., 180 grains.
Powdered capsicum.....	30 grains.
Fresh lemon peel, sliced.....	1 oz. av., 262 grains.
Citric acid, powdered.....	144 grains.
Diluted alcohol.....	enough.
Syrup (U. S. P.).....	enough to make 1 gallon.

Mix all the ingredients except the syrup in a capacious glass vessel (a half-gallon fruit jar will do), close tight, and shake at frequent intervals for twelve hours. Then transfer to a funnel and allow the liquid to drain off, returning the first portions until the drip is clear. Bring the finished product up to 1 pint by passing diluted alcohol through the mass in the funnel. Finally add the syrup.

This syrup may be colored with caramel if desired, and if too gingery a little lemon syrup may be mixed with it.

A Fountain in the Basement.

What is said to be one of the largest and best drug businesses west of the Mississippi is that of the Sherman & McConnell Drug Company, at Omaha. In the main store of this company something new in the soda department is soon to be tried; the fountain is to be placed in a room under the sidewalk at the front of the store, reached by a stairway leading from the inside of the store, well toward the front.

The opinion of the editor of this department is that the more accessible the fountain the greater the business that will be done by it. The fountain which is in plain sight of the street and preferably about on the level of the sidewalk or at any rate not more than one short step above or below it, is the one which will catch the trade—other considerations being equal.

Medicated Soft Drinks.

In her annual report for 1910 as superintendent of the department of medical temperance of the National Woman's Christian Temperance Union, Mrs. Martha M. Allen says:

An extensive campaign against soft drinks containing drugs was carried on last winter and spring. Three leaflets and a letter upon drug drinks were sent to every member of every State legislature in session in 1910, and to ministers, editors, health officers, college presidents and many others. Over 10,000 people were thus reached. Packages of leaflets on these drinks were sent free to W. C. T. U. workers in every Southern State. This campaign cost nearly \$300. Bills regulating, or forbidding, the sale of these drinks were introduced into the legislatures of several Southern States, but none were enacted into law so far as I have been able to learn. The W. C. T. U. of Cincinnati, O., has done excellent work against drug drinks.

Baltimore Men Good Soda Patrons.

The answer to the question how to make the soda water fountain pay and increase the business depends, in the opinion of experienced dispensers in the Monumental City, largely upon location and the kind of business to be attracted. The fountain with a great preponderance of woman customers will probably find it advantageous to exercise ingenuity in devising fancy decoctions, supplying wafers and adopting other ideas not directly connected with the compounding of beverages. With the fair sex, display will be found to go a long way, frequently making a stronger and more lasting impression than the quality of the drink. Elaborate signs, "bills of fare," and other devices will help materially to draw this class of trade, the character of the beverage being frequently lost sight of in admiration of the trimmings.

With a store having chiefly men for customers the problem is wholly different. Mere man is believed by some observers to be far more discriminating than his wife or daughter when it comes to judging the goodness of a drink, but he compensates for this by making relatively small demands in the matter of display. Men soon develop a taste for certain decoctions and stick to them, being as constant in their soda allegiance as is the toper to his stronger tipple. Their range of taste is also comparatively limited, and the dispenser of soda for a male clientele is not required to rack his brain for novel combinations with which to tickle the palate of his customers.

This, at least, has been the experience of Morgan & Millard, druggists, at Baltimore and South streets. The firm is just on the edge of the financial district, away from the shopping section and its patronage consists almost wholly of men. This stand was secured by them after the great fire of February, 1904, which occasioned some shifting in the character of the business in the immediate vicinity and made the neighborhood more than before a district devoted to the activities of men. The problem which the firm had to solve, therefore, was how to please men, not a few of whom had been taking something stronger than soda water.

WOMEN ARE FREE-LUNCHERS.

"We soon found," said Charles Morgan, senior member of the firm, "that the men cared little for variety. They would come in and call for the same thing every day or whenever they felt that a glass of soda water would be relished. At the most their selections would take a narrow range. We also discovered that it was unnecessary to make use of what has been deprecatingly spoken of as 'the free lunch' feature to draw business. A woman might instinctively look around for a wafer or graham cracker or something of the sort, but to a man it seems to make little or no difference whether such a thing is in reach as he sips his soda. He comes in primarily to get a drink, and he will not walk half a block out of the way to favor a place that gives him something more. Of course, we always keep a bowl of some fancy crackers on the counter, but beyond this we do not find it necessary to go.

WHAT MEN PREFER.

"It is also our experience that most men care little for fancy drinks. They are very fond of chocolate, and all beverages with chocolate as a flavor are exceedingly popular. Chocolate is called for in numerous combinations, hot or cold, and the quantity of chocolate we use is rapidly increasing. We have also found that the popularity of egg drinks is on the increase, men taking them not merely to allay thirst, but as food. Our chief difficulty of late has been the high price of eggs. Of course, we must get eggs that are absolutely fresh. They are broken right before a customer, and for a patron to see a bad egg broken gives him a shock which he does not soon get over; he will always hold it against the establishment. To get eggs that could be depended upon, therefore, we have been sending into the country and paying 50 cents a dozen, which cut seriously into profits. Under ordinary circumstances there is an excellent margin of profit in egg drinks, which average about 15 cents in price. As a rule we stick to the regular decoctions, taking care only that all the ingredients are of first class quality. We have no peculiar touches, although it is important that the dispenser should know his business and get just the right proportions. Our list of beverages includes most

of those to be found in other drug stores, though I must admit that we put them up just a little bit differently.

FRESH JUICES AND HEAVY SYRUPS.

"And right here let me mention another thing, which is no secret and which we don't object giving competitors the benefit of. The fruit flavors should be of fresh fruit, especially the juices of citrine fruits. Manufactured products of these that have been prepared and shipped for long distances will not meet the requirements of discriminating patrons of the soda fountain. It takes trouble to grate your oranges and lemons, but the results are worth the pains; you satisfy your customers. Any juices when allowed to stand for a considerable length of time, lose some of that delicacy of flavor which they should have, and get just a trifle sharp. It may also be well to state that syrups should be made up fairly thick, with enough body to keep. Light syrups readily lose their richness and are apt to spoil.

CARDS AND HANGERS.

"We do not believe in elaborate cards or other detracting features, which tend to cheapen the appearance of a fountain rather than attract favorable attention. Accordingly, we use nothing by way of advertising beyond a few cards or blackboard, with neat white lettering giving the names of a few of our drinks. Our egg drinks embrace chocolate, phosphate, calisaya, egg and milk, coffee, lemonade, and a few others, most of them selling for 10 cents. The price of the lemonade is 5 cents. Sundaes include chocolate, vanilla, pineapple, lemon, orange, fruit, strawberry, raspberry, cherry and others, at 10 cents. Our only other display is a card outside the store, on which a different beverage is made prominent every day.

"Men do not care much for fancy mixtures or for ice cream drinks, and we make no special effort to popularize these. If called for, they are served, of course, but this part of the business is not singled out or encouraged more than any other.

COLD DRINKS IN WINTER.

"Though we have not departed from what may be called strictly legitimate lines, our business has steadily increased, notwithstanding the fact that we entered a new field and had much competition to face. What is more, we are doing about as much now in winter as we do in summer, the winter business having grown even more rapidly than that during the hot weather. Hot drinks are naturally served in winter, but the number of persons who prefer their favorite beverages cold is surprisingly large.

FOUNTAIN PROFITS LARGE.

"Our view of the matter is that the soda water trade affords a very handsome margin of profit if handled right, and constitutes a most valuable adjunct to the drug store."

Tips and Formulas from Atlanta.

Atlanta ranks among the best soda towns of its size in the country. The rule there is for the floor of the store to be nearly on the level of the sidewalk, the idea being that the easier it is for people to get into the store, the more will enter. Doubtless this is true. Wide doors, kept invitingly open except when weather conditions do not permit, are another silent but largely effective invitation to the public to enter.

One of the leading fountains in the Gate City is to be found in the store of the Jacob's Pharmacy Company. A few years ago the CIRCULAR mentioned that a whole-page advertisement of this company's soda department had appeared in one of the Atlanta papers issued October 11th, and called attention to the size of the announcement in connection with its date. The advertisement stated that all glasses, spoons, etc., were sterilized after each using, and that the syrups were prepared on the premises in a steam-jacketed boiler, which insured freedom from scorching.

The fountain's head dispenser informs the CIRCULAR that it is conducted on the theory that the prime requisite to success is the public's patronage, and that this point is borne in mind at all times. It is required of all attendants that they keep their clothes and their hands clean, and each one is responsible for certain work to be done to keep the dispensing department in the best possible shape at all times. Cleanliness, system, style, he says, are three words whose meaning should always be

borne in mind at the fountain. The head dispenser should so arrange the glasses, ice cream, whipped cream, and all other ingredients, as well as the appurtenances that the maximum of speed in dispensing may be obtained with a minimum of effort.

Journals should be read, continues this authority, and the formulas which they contain should be studied, but not necessarily adopted. They serve as suggestions, and each manager of a fountain should be able to adapt them to meet the requirements of his trade. One of his own favorite formulas is the following:

Gate City Punch.

Fill a sherbet glass two-thirds full of vanilla ice cream; top off with whipped cream; but a cherry and marshmallow on top; and sprinkle lightly with ground nuts.

For this confection he charges one dime.

Here are a few pointers for his brothers contributed by this dispenser:

"If you can get up a new sundae or fancy drink give it an appropriate name—not too loud, but suggestive.

"Have your signs neat and where they can be seen.

"To be among the topnotchers you must take an interest in your business; study it, stay with it, be on the lookout for new ideas and they will come to you.

"To make it a financial success always ascertain the cost of a new drink before putting it on.

"Have a leader, a special drink that looks a little nicer and tastes a little better than can be gotten elsewhere.

"Serve the very best material that your trade will justify.

"Always remember that it is easier to hold an old customer than to get a new one."

Cold Drinks for Mid-Winter.

Here are just a half-dozen formulas for drinks and sundaes which will help to popularize the cold soda business even in mid-winter:

Fruits and Flowers.

Grape juice.....	1½ ounces.
Raspberry syrup.....	½ ounce.
Vanilla syrup.....	½ ounce.
Rose syrup.....	½ ounce.
Cracked ice.....	enough.

Mix in a large glass and fill with water from the fine stream.

Come-Again Sundae.

Chop well together equal parts of figs, raisins, marshmallows, citron, and nut kernels. Place ice cream on the sundae plate, pour over it a little chocolate syrup, and garnish with the chopped mixture. An extra touch can be given to this mixture by topping with whipped cream and a cherry or two.

Prohibitionists' Tipple.

Grape juice.....	3 ounces.
Juice of.....	1 lemon.
Egg.....	1 only.
Simple syrup.....	2 ounces.
Cracked ice.....	enough.
Plain water.....	4 ounces.

Mix well in a shaker, strain into a glass, and fill with the fine stream.

Banana Sundae.

Place half of a split banana on a dish of suitable shape and partly cover it with vanilla ice cream. Pour over this some chocolate and syrup, and top with whipped cream, and a sprinkle of chopped nuts.

Cold Malted Egg.

Malted milk.....	enough.
Egg.....	1 only.
Plain cream.....	2 ounces.
Vanilla syrup.....	1 ounce.
Cracked ice.....	enough.

Shake all together, pour into a glass, and fill with the fine stream.

Breath of Spring.

Place ice cream in a sundae dish and pour over it an ounce or two of a mixture of cherry and pineapple syrup, and a little whipped cream. Top with a cherry and a pineapple cube.

A Few Hot Ones.

Below are a few formulas for hot beverages, some of which are original with the CIRCULAR while others have been caught as they flit from journal to journal.

Angelito.

White of.....	1 egg.
Juice of.....	1 lemon.
Powdered sugar.....	3 spoonfuls.

Beat the egg white with the sugar until a good froth is made, then add the lemon juice and enough hot water to fill an 8-ounce mug, stirring continuously.

Clam Bouillon.

Clam juice.....	1 ounce.
Butter.....	½ teaspoonful.
Cream.....	1 teaspoonful.

Place in a mug and fill with boiling water. Sprinkle a little celery salt on the drink and serve with wafers.

Cream of Tomatoes.

Tomato catsup.....	½ ounce.
Cream.....	1 teaspoonful.

Stir together in a mug, and fill with hot water. Top with whipped cream and sprinkle with a little celery salt. Cheese wafers go well with this.

Oyster Malt.

Malted milk.....	2 teaspoonfuls.
Oyster juice.....	1 ounce.

Mix, adding butter and celery salt, and fill the mug with hot water.

Beef and —

Extract of beef.....	½ teaspoonful.
Egg.....	1 only.

Mix in an 8-ounce mug, stir in enough hot water to fill, sprinkle with celery salt and paprika, and serve with cheese wafers.

If three or four people are to be served in a party, and the dispenser completes one drink before the next one is begun, the first of the party served will either have to proceed ahead of his friends, or drink a stale glass of soda. Experienced and careful dispensers put the syrups, cream, etc., in all the glasses, and then rapidly draw and serve the soda water.

The Vanilla Market.

Vanilla flavor is as standard at a soda fountain as flour is in the grocery store. This flavor, as is well known, is made from beans which grow in Mexico and elsewhere. The two principal varieties of beans found in commerce are the Mexican and the Bourbon. As recently as a dozen years ago the Mexican was considered so much superior to the Bourbon that it sold for about two-and-a-half times as much, but from year to year the price of each kind has fallen, that of the Mexican more rapidly than that of the other variety, until now the prices of the two kinds are nearly the same. The table below, showing the range in wholesale prices for vanilla beans for the past twelve years, enables one to see at a glance how prices have fallen and how the difference between the prices of the two varieties has almost been wiped out.

	Mexican Whole Beans, Per pound.		Bourbon Beans, Per pound.	
	High.	Low.	High.	Low.
1899	\$12.00	\$11.00	\$5.00	\$4.00
1900	11.00	9.00	4.50	4.00
1901	9.00	6.75	4.75	3.00
1902	6.75	4.75	3.00	2.50
1903	6.50	5.00	2.50	1.50
1904	5.00	3.75	1.50	1.50
1905	3.50	2.75	1.50	1.00
1906	2.75	2.75	1.50	1.00
1907	4.25	2.75	3.00	1.25
1908	4.25	3.00	3.00	1.50
1909	3.25	2.75	3.00	1.75
1910	3.37½	2.75	3.00	2.75

Mexican cut beans sell for from about 7½ to 15 per cent. less than the Mexican whole beans.

There are said to be half a million pounds of Mexican beans to be marketed before the new crop is gathered, which is just about double the usual annual offering. In the meantime, however, it is thought that the Bourbon beans will cut little figure in the market, so that buyers will not have things entirely their own way.

Small cubes cut from crystallized pineapple make an attractive and toothsome topping for sundaes and some of the heavier drinks.

Smooth Ice-Cream without Gelatin.

In answer to an inquiry from J. D. M., Connecticut, it may be stated that gelatin and the various other fillers used to cheapen ice-cream are not conducive to the smoothness of the product. This quality is the result of proper manipulation—it is of course easier to make a glued-up mixture *stay* smooth, in truth the office of the colloid is to conceal the granulation due to the lactic fermentation in the cream.

The best all-round ice cream for fountain use is "Philadelphia ice-cream," a simple, honest mixture of cream, sugar, flavor, and good work. These are the ingredients:

Cream	2 gallons.
Sugar	3 pounds.
Vanilla beans.....	4 only.

Here is the way to make it:

Select a "double" cream containing one and one-fourth times as much butter fat as the food authorities require in ice-cream; that is, if the butter-fat content standard for ice-cream is 14 per cent. start with a cream, or a mixture of fresh milk and cream, containing not less than 17.5 per cent. of fat. Split the vanilla beans into four sections and cut these into inch lengths; soak the vanilla in the cream for several hours. Gently heat the cream containing the chopped beans until it begins to boil; remove from the heat, and add the sugar, stirring the mixture gently until the sugar is dissolved. Strain the mixture into the can of the freezer and let it cool. Then with an egg whip beat the mixture to a froth; close the freezer, and turn with a steady vigorous motion. Some of the things that produce second- or third-grade ice-cream are the use of poor, soured cream; the use of cheap, dirty, or blued sugar, not completely dissolved; over-done economy of ice and salt; failure to have the ice crushed fine enough; intermittent and slow turning of the freezer; and careless work in general.

Other ice-cream formulas appear in the CIRCULAR for April, 1910, page 177.

Large Profit in Hot Drinks.

Allowing a liberal amount for running expenses and all possible contingencies, there can be realized from the hot soda business, if properly conducted, a profit of from 100 per cent. up. This will vary according to the amount charged per drink, which, says the *Pacific Drug Review*, on the Pacific Coast, at least with the larger of the dispensers, averages 10 cents, whereas, Eastern fountains serve most of the hot drinks at 5 cents each and still make a liberal profit.

There are few businesses that will show a clear profit of 100 per cent. or more with so small an investment and with so little trouble in operating as is required in the hot soda business.

Once a customer stopped patronizing a certain place because the attendants stuck their fingers in the glasses when removing them. A crank? Maybe; but the world is full of cranks.

An Eye-Water Fake.

"Professor" H. Samuels, hailing from and usually holding forth at Wichita, Kan., claimed to be "the only living person" who by means of medicine (specially prepared and priced, likewise supplied by the "perfessor") applied to the eye treats and has cured all sorts of pathological conditions from tuberculosis to the morphine habit. His advertising in the public press heralded the fact that so successful was he in his peculiar system of medicine that he had been arrested time and often at the instigation of envious physicians who charged him with practicing illegally.

Two samples of this "marvelous medicament" (\$25 per ounce) were examined cursorily in the laboratory of the American Medical Association. In a report in the *Journal* of the association the chemists stated that the liquid responded to tests for "sodium chloride, sugar, and a sulphate," but gave no indications of the presence of any metal or alkaloid. Quantitatively they found about 7.5 per cent. each of sugar and salt.

Through the liberality of A. D. Ellis, of East Syracuse, N. Y., a copy of Mrs. Allen's book, "Alcohol a Dangerous and Unnecessary Medicine," has been sent to each medical library in the United States and Canada.

Some Federal Allegations of Sophistication.

Almost 150 additional notices of judgments under the food and drugs act of June 30th, 1906, have been issued by the federal government since the list published in the CIRCULAR for November, last, page 588, was compiled. Such of these as have to do with commodities germane to the retail drug business are summarized below.

Olive Oil.—Donato Maddaloni, of this city, shipped in interstate commerce a consignment of a food product labeled "Olio d'Oliwa, Sopraffino di Sorrento. Marca Masaniello, Pure Olive Oil. This olive oil is imported and canned by Donato Maddaloni, N. Y., U. S. A." Samples analyzed by the government were reported as containing approximately 50 per cent. of cottonseed oil and to be artificially colored. Proceedings were brought against the shipper in the United States court for the southern district of New York, and on a plea of guilty the court imposed a fine of \$25.

A consignment of an oil labeled "San Rocco brand Salad Oil, San Rocco Qualita Sopraffino Marca, San Rocco (a compound) winter pressed cotton oil, flavored with pure Italian Olive Oil, packed in New York in compliance with the United States Pure Food Law, Olio, Marca, San Rocco," was shipped in interstate commerce by the Strohmeier & Arpe Company, of this city. This oil, it was reported by the bureau of chemistry, after the examination of samples, was misbranded because, as it alleged in the United States court for the southern district of New York, the words "San Rocco Brand Salad Oil" were in large type on the label and the words truly descriptive of the contents were in small type not likely to be noticed by the purchaser. The defendant filed a motion to quash this information. This was granted by the court on the ground that the label would not mislead anyone of ordinary intelligence.

A plea of guilty was entered in the United States court for the eastern district of Wisconsin by the Drake Brothers' Company, of Milwaukee, Wis., to a charge of violating the law in shipping in interstate commerce a food product labeled "Superior French Virgin Olive Oil, inspected by the United States government chemist and guaranteed pure. Imported by Drake Brothers Company, Importers, wholesale and retail druggists, Eastwater and Michigan streets, Milwaukee, Wisconsin," which the government alleged was misbranded because the product had never been examined by the "United States government chemist." The defendants were sentenced to pay a fine of \$25.

Jacob Cusimano, Albert J. Cusimano, and Leon Tujague, trading as the Cusimano & Tujague Company, New Orleans, La., shipped in interstate commerce a food product labeled "Olio Pura d'Oliwa Guarantito Torelli Brand Pure Olive Oil." After analysis the bureau of chemistry reported that the product was adulterated in that it contained cottonseed oil, and misbranded in that this fact was not indicated upon the label. The defendants plead guilty in the United States court for the eastern district of Louisiana, which imposed a fine of \$10 and the payment of costs.

Concetta Palma doing business as the Lucca Olive Oil Importing Company, shipped in interstate commerce a consignment of a food product labeled "Olio d'Oliwa Colombo Brand Marca Depositata. Cotton seed oil. Olive Oil. Compound Lucca Olive Oil Importing Company, New York, N. Y." After analysis by the bureau of chemistry, the government alleged that the product was misbranded in that the words "Olio d'Oliwa" and "Olive Oil" appeared on the label in large type, while the words "Cottonseed oil" appeared in small, indistinct type. In the United States court for the southern district of New York, the defendant plead guilty to the charge and the court suspended sentence.

Marchesini Brothers, of this city, shipped in interstate commerce assortments of various sized cans containing a food product. These cans were labeled "Italian Produce superfine olive oil, F. Bertolli, Tuscany, Italy," and the cases containing the cans were labeled "Olive Oil, extra quality, F. Bertolli, Lucca." The bureau of chemistry reported from the examination of samples that the product was adulterated and misbranded in that it consisted in part of cottonseed oil and was not labeled so as to indicate the fact. The United States court for the eastern district of Pennsylvania, in which a label was filed, condemned the product with the proviso that it be delivered to the shippers who appeared as the claimant, upon the payment of costs and the execution of a bond in the sum

of \$400 conditioned that the product should not be sold contrary to the food and drugs act.

Extract of Lemon.—The Hetfield Extract and Manufacturing Company, of this city, shipped in interstate commerce a consignment of a product labeled "Goldenrod Compound Lemon Flavor Compound of oil lemon. Dilo alcohol, Veg. color, Hetfield Ext. & Mfg. Co., New York, N. Y." Samples examined by the government analyst were reported to be adulterated and suit was brought in the United States court for the southern district of New York. It was alleged that the product was a highly diluted solution of citral in methyl alcohol containing practically no oil of lemon, and was colored with a coal-tar dye. The defendant plead guilty to the charges and a fine of \$5 was imposed.

The Symns-Utah Grocery Company, of Salt Lake City, Utah, shipped in interstate commerce a product labeled "Double Strength, Concentrated Extract of Lemon, Symns-Utah Grocery Company, Salt Lake City, Utah." Samples examined by the government analysts were reported to be adulterated and misbranded because they were a dilute terpeneless extract of lemon, artificially colored and containing only a trace of oil of lemon. The defendant entered a plea of guilty in the United States court for the district of Utah, and was sentenced to pay a fine of \$25 with the costs.

A consignment of a food product shipped in interstate commerce by the Hall-Whitney Manufacturing Company, of Binghamton, N. Y., was labeled "Finest quality. E. & E. Trade Mark. Strictly Pure Flavoring Extract of Lemon. Color simulated. Guaranteed under the Food and Drugs Act of June 30, 1906. Serial No. 2959. Distributors Erwin & Eberwine, Evansville, Ind." It was analyzed by the bureau of chemistry and reported to be a dilute extract of lemon. In the resulting proceedings in the United States court for the northern district of New York, the defendant plead guilty and was fined \$100.

A sample of a food product labeled "Star Extract of Lemon, Knoxville Drug Co., Manufacturing Druggists, Knoxville, Tenn.," was taken from a consignment shipped in interstate commerce by the Knoxville Drug Company and examined by government chemists. Their reports indicate that the product was adulterated in that it consisted wholly or in part of a dilute extract of lemon and that it was colored with a coal-tar dye, and misbranded in that the label was not a true indication of the contents of the containers. Suit was brought in the United States court for the eastern district of Tennessee, and the defendant's company, through J. L. Lowe, its manager, submitted to the charges and was sentenced to pay a fine of \$10 with the costs.

Newmark Brothers, of Los Angeles, Cal., shipped in interstate commerce a quantity of a food product labeled "Acme Brand Terpeneless Flavoring Extract Lemon Flavor." Samples from this shipment were analyzed by government chemists and as a result of their findings suit was brought against the company in the United States court for the southern district of California alleging that the product was adulterated in that it contained but one-twentieth of the required amount of citral and that it was colored so as to deceive; further that it was misbranded because the label tended to deceive the purchaser. On a plea of guilty the court imposed a fine of \$1.

A plea of guilty was entered in the United States court for the eastern district of Virginia by the Christian Brothers Company, of Richmond, Va., to a charge of violating the law in shipping in interstate commerce a consignment of a food product labeled "Mammy's Favorite Extracts, Lemon, made by Christian Bros. Co., Richmond, Va." Samples of this product were reported by the government chemists to be adulterated because it contained far less than the required percentage of oil of lemon, and had been artificially colored to conceal its inferiority. The court suspended sentence.

A food product labeled "Dever's Golden West Triple Extract of Lemon" was shipped in interstate commerce by Closset & Devers, of Portland, Ore. Samples were procured by the bureau of chemistry, and after analysis were reported to be adulterated and misbranded in that the product contained no oil of lemon but was an artificially colored terpeneless extract and that the label was calculated to deceive the purchaser. The United States court for the district of Oregon in which the shippers entered a plea of guilty, imposed a fine of \$25 and ordered the defendants to pay the costs.

The C. F. Sauer Company was charged in the United States court for the eastern district of Virginia with violating the law by shipping in interstate commerce a food product alleged to be adulterated and misbranded. This product was labeled "Gold Medal Pure Concentrated Extract of Lemon, Colored, Not Full Strength, Standard Extract Company, New York. (Guaranty Clause) Serial No. 1614." The charge of adulteration was based on the allegation that the extract contained but little oil of lemon. The misbranding was alleged to consist in the statement that it was manufactured in New York, when in fact it was manufactured at Richmond, Va. The defendant plead guilty to the charge of misbranding; the charge of adulteration was nolle prossed; and the court imposed a fine of \$25.

Vanilla Flavoring.—A charge of misbranding was brought in the United States court for the eastern district of Virginia, against the C. F. Sauer Company based on the allegation that a food product shipped by the company in interstate commerce with the label "Gold Medal Pure Concentrated Extract of Vanilla, Standard Extract Company, New York. (Guaranty Clause) Serial No. 1614," had been manufactured at Richmond, Va. The defendant entered a plea of guilty and was sentenced to pay a fine of \$25.

A food product labeled "Vanoleum, Concentrated Vanilla, a compound, Corrizo Extract Company, New York City, U. S. A.," was shipped in interstate commerce by the Corrizo Extract Company of this city. From the analysis of samples by the bureau of chemistry the product was alleged to be misbranded, and a suit was filed in the United States court for the northern district of California, in which it was set forth that the flavor consisted of a mixture of vanillin and coumarin dissolved in alcohol and glycerin and colored with caramel. The manufacturer consented to a decree of condemnation and the court ordered that upon the filing of a bond conditioned that the goods would not be disposed of contrary to the law, and the payment of the costs of the proceedings, the goods be delivered to the claimant.

The Crown Manufacturing Company, of this city, shipped in interstate commerce a food product labeled "Vanilla. Scientifically prepared. Colored with harmless color. Serial No. 4664. Crown Manufacturing Company, New York. St. Louis." Samples were analyzed by the bureau of chemistry, and were reported to be misbranded because the product was labeled in such a manner as to conceal the fact that it was an artificially colored imitation extract of vanilla. A plea of guilty was made by the defendant in the United States court for the southern district of New York, and a fine of \$15 was imposed.

A plea of nolo contendere was made by the Ludlow-Robson Company, Incorporated, of Toledo, Ohio, in the United States court for the northern district of Ohio to a charge of violating the law by shipping in interstate commerce a food product which was declared by the government analysts to be misbranded. The product was labeled "Pen-nant Brand Flavoring Extracts. Imitation Vanilla Flavor, Pure vanilla 20.52, Vanillin 12.00, Coumarin 3.48, Sugar 8.00, Grain Alcohol 12.00, Water 44.00, Caramel color, manufactured by the Ludlow-Robson Company, Toledo, Ohio. Guaranty Serial No. 7310." The analysts reported that the flavor did not contain the ingredients in the amounts stated on the label, but contained "alcohol 8.04, vanillin 0.58, coumarin 0.05, and a small amount of vanilla resins." The court imposed a fine of \$25 with the costs.

"Rexall Headache Wafers."—The United Drug Company of Chicago, Ill., was charged in the United States court for the northern district of Illinois with shipping in violation of the law a drug product labeled "Rexall Headache Wafers," which from the examination of samples taken by government inspectors was declared to be misbranded because of the statement on the package that the product was harmless whereas it contained caffeine and acetphenetidin, both alleged by the government to be harmful and injurious to health, and further that it was stated on the label that the product contained 228 grains of acetphenetidin to each ounce whereas it did contain 339 grains to the ounce. The defendant entered a plea of nolo contendere and was sentenced to pay a fine of \$50.

"Funny-how-quick" Headache "Cure."—The J. Maro Hariman Drug Company, of Lynn, Mass., shipped in interstate commerce a preparation labeled "Funny-how-quick" Headache and Neuralgia Cure. A Sure and Quick Relief for all Headaches and Neuralgia. Contains no opium, morphine or Antipyrine. Does not stupefy but braces one up.

Will not cause a habit. Guaranteed to cure or money refunded. Dose. One tablet and repeat in $\frac{1}{2}$ hour if needed. Manufactured by the 'Funny-how-quick' Company, Box 485, Lynn, Mass. Price 10 cents. Large Box 25 cents. For sale by all Druggists." On the examination of samples taken from this shipment by the bureau of chemistry the product was declared to be misbranded in that the amount of acetanilid was not properly and correctly stated on the label, and that the product was a habit-forming drug. Suit was brought in the United States court for the district of Massachusetts, and the defendant after entering a plea of *nolo contendere* was fined \$25.

Headache Powders.—Proceedings were instituted in the United States court for the district of Massachusetts against J. F. Gearan, of Boston, Mass., in which it was alleged that the defendant had shipped contrary to law two consignments of a drug product labeled "Headache Powders Each Powder contains Acetphenetidin 5 grains with other Pure and Efficient Ingredients. Direction. . . . Price 10 cents. Prepared for J. F. Gearan, Pharmacist. Successor to Chas. Coleman, 48 Cambridge street, cor. Temple, Boston, Mass." These statements on the label were alleged to be false and misleading, because the powders did not each contain 5 grains of acetphenetidin and some of them contained acetanilid. The court imposed a fine of \$25 on a plea of *nolo contendere*.

"Howe's Headache Tablets and Howe's Headache Treatment."—Consignments of drug products shipped in interstate commerce by the Howe Medicine Company, of Philadelphia, Pa., were sampled by the government and examined. The products were labeled "Howe's Headache Tablets" and "Howe's Headache Treatment." In a suit brought in the United States court for the eastern district of Pennsylvania against the company it was alleged that both were misbranded because the labels bore a statement that each tablet contained "in addition to other antidotes one grain of acetanilid," where it was shown by analysis that they each contained two grains of the drug and because the statements on the labels were false and misleading in other respects. On a plea of guilty the company was sentenced to pay a fine of \$50.

"Dr. Peters' Headache Powders."—The Delaware Drug Company, of Hancock, N. Y., shipped in interstate commerce a quantity of a drug product labeled "Dr. Peters' Headache Powders 1 oz. 280 grains phenylacetamide. They will relieve headache, neuralgia, pains in any part of the body in 15 minutes. Guaranteed under the Food and Drug Act of June 30, 1906. Serial No. 1216. Delaware Drug Co., Hancock, N. Y." The government after analysis of samples of the drug alleged that the product was misbranded, because the fact that the product contained acetanilide was not stated on the label. Proceedings were instituted in the United States court for the northern district of New York and resulted in the defendant being fined \$50 on a plea of guilty.

"Sure Pop Headache Powders."—Criminal information was filed against the Sure Pop Company, of Terre Haute, Ind., in the United States court for the district of Indiana charging it with violating the law by shipping in interstate commerce a product labeled "Sure Pop Cures Headache and Neuralgia. . . . Prepared by Sure Pop Company, Terre Haute, Indiana. Price 15 Powders 25 cents. Sure Pop, the Great Nerve. Try it." On the report of the analysis of samples of this product the government alleged that the product was misbranded because the claims of curative worth were false and misleading. The defendant plead guilty and the court imposed a fine of \$25 with costs.

"Mrs. Summers' Harmless Headache Remedy."—Gabriel R. Summers, doing business as Vanderhoof & Co., South Bend, Ind., shipped in interstate commerce a quantity of a drug product labeled "Mrs. Summers' Headache Remedy." Samples were analyzed by the bureau of chemistry, and the drug alleged to be misbranded in that the statement printed on the containers "harmless headache remedy" was false because the product contained caffeine, acetanilide, camphor, and sodium salicylate. In the United States court for the district of Indiana the defendant plead guilty, and a fine of \$10 with costs was imposed by the court.

"Wells' Dime Headache Cure."—A drug product labeled "Wells' Dime Headache Cure. . . . Wells Medicine Company, Lafayette, Indiana," was shipped in interstate commerce by this company. Samples taken from the ship-

ment were analyzed by government chemists and from their finding proceedings were instituted in the United States court for the district of Indiana alleging that the product was misbranded because it was not a cure for headache. The defendant plead guilty and was fined \$10 and ordered to pay the costs.

"Failing's Headache Powder."—The Failing-Nellis Drug Company, of Albany, N. Y., shipped in interstate commerce a quantity of a drug product labeled "Our own headache cure; a safe and efficient remedy for headache, neuralgia, etc. Failing & Company, Albany, N. Y. We guarantee this cure to contain no opium, morphine, antipyrine, bromides, or narcotics and leaves no disagreeable after effect. Failing's headache cure is a harmless and efficient remedy, pleasant, quick, and sure for all sick and nervous headache, etc. It is a guaranteed cure." Samples analyzed by the bureau were alleged to be misbranded because they contained acetanilide of which no mention was made on the label and that the label bore false and misleading statements of curative properties. Proceedings were brought against the company in the United States court for the northern district of New York. The defendant entered a plea of guilty and was fined \$125.

"Dr. Winchell's Teething Syrup."—Proceedings were instituted in the United States court for the northern district of Illinois against the Emmert Proprietary Company, of Chicago, Ill., in which the defendant was alleged to have shipped in interstate commerce in violation of the law, 144 bottles of a drug product labeled "Dr. Winchell's teething syrup, for stomach and bowel troubles during teething; diarrhoea, dysentery, colic, summer complaint, sore mouth and ordinary ailments of children. Emmert Proprietary Company, Chicago, Ill. Guaranteed under the Food and Drugs Act of June 30, 1906. Serial No. 576." Samples from this shipment were examined by the bureau of chemistry and alleged to be misbranded because a circular wrapped around each bottle contained the following statements which the government contended were false and misleading: "The best medicine for the diseases incident to infancy that has ever been given to the world"; "Will positively cure every case if given in time"; "Quiets and soothes all pain"; "Cures diarrhoea, and dysentery in the worst forms"; "Is a certain preventive of diphtheria"; "Cures . . . diphtheria." The defendant first entered a plea of not guilty but later submitted a plea of guilty, whereupon the court imposed a fine of \$25 with costs.

"Mother's Friend."—A preparation labeled "Mother's Friend," shipped in interstate commerce by the Bradfield Regulator Company, of Atlanta, Ga., was, on analysis by the bureau of chemistry, declared to be misbranded because, it was alleged by the government, the preparation was not, as it was claimed on the labels, "The Mother's Friend, for the relief of suffering incident to child birth"; a "remedy upon which confidence could be placed; one that will assist in a safe and quick delivery and one that shortens the duration of labor." Libels were filed in the United States court for the southern district of Georgia which tribunal upon a plea of guilty fined the defendant \$25 and ordered it to pay the costs of prosecution.

"Radam's Microbe Killer."—The federal government instituted libel proceedings in the United States court for the western district of Washington charging the misbranding of twenty-five cases of a drug product shipped in interstate commerce with the label: "William Radams Microbe Killer, kills all diseases. Serial No. 6675." The unit packages in the cases bore the following statements: "It is a positive and certain cure for all diseases and is guaranteed to be perfectly harmless. It will effect a cure in every instance if given a fair trial." "Cures by removing the cause—microbes," "Microbe Killer is perfectly harmless and can be taken in any quantity without danger," and blown in the bottle was the statement: "Cures all diseases." The Radams Microbe Killer Company appeared by attorney and admitted the allegations contained in the libel and the court decreed the condemnation of the product and ordered that it be forfeited, with the proviso that upon the payment of costs and the execution and delivery of a bond in the sum of \$500 conditioned that the product would not be disposed of contrary to the law, the consignment should be released to the claimant. The claimant failed to pay the costs within the time provided and the court ordered the marshal of the district to destroy the twenty-five cases of the preparation.

Cancer Cure.—A. J. Miller, of St. Louis, Mo., shipped in interstate commerce two boxes of an ointment sold as a

cancer cure. The government in a suit in the U. S. court for the eastern district of Missouri alleged that the product was misbranded in that it contained 31.8 per cent. of acetanilide about which the label failed to bear any statement. The defendant plead guilty and was sentenced to pay a fine of \$25 and the costs.

"Cancerol."—Leon T. Leach, of Indianapolis, Ind., shipped in interstate commerce a product labeled "Cancerol, a compound of essential oils for the treatment of malignant diseases, originated and perfected by L. T. Leach, M. D. Blood renovator. Predigested oils for internal administration. This preparation tones up the general system, enriches the blood and fortifies the glands against invasion of malignant cells. It does not injure the most delicate stomach, etc. Directions: Take one teaspoonful before each meal with or without water. From the Parkview Sanitorium and Dispensary, Dr. L. T. Leach, Medical Director, Indianapolis, Ind." Along with this was a salve labeled "Healing salve, composed of a due mixture of vegetable and mineral oils, with certain drugs of highly healing qualities. . . ." Samples were analyzed by the bureau of chemistry, and were alleged to be misbranded in a suit filed in the United States court for the district of Indiana because the product in the bottle was not essential oils or predigested oils but that it contained 14 per cent. alcohol and a certain proportion of opium which fact the label failed to indicate. It was also alleged that the salve was not a compound of vegetable oils with certain drugs with healing properties as stated on the label. The defendant entered a plea of not guilty for which was later substituted a plea of guilty and the court imposed a fine of \$25 with costs.

"Soemnoform."—A product was shipped in interstate commerce by Jacob F. Frantz, George H. Whitely, Dean C. Osborne, and John R. Sheppard, trading as E. De Trey & Sons, Philadelphia, Pa., labeled "Soemnoform. This mixture contains chloride of ethyl 60%, chloride of methyl 35%, bromide of ethyl 5% Guaranteed under the Food and Drugs Act of June 30, 1906. Serial No. 5700. . . ." It was analyzed by the government. As a result criminal information was filed in the United States court for the eastern district of Pennsylvania against E. De Trey & Sons charging that the product was adulterated and misbranded in violation of the law because it did not contain "bromide of ethyl 5%," or any bromide of ethyl. The defendants entered a plea of guilty and a fine of \$25 was imposed.

Cocaine.—Proceedings were instituted in the United States court for the district of Indiana against Charles Crescellus, of New Albany, Ind., charging that he shipped in violation of the law a quantity of a drug sold as from cocaine. Samples had been examined by the bureau of chemistry and the product was alleged to be misbranded because it consisted of 80.34 per cent. of acetanilide and 19.64 per cent. of cocaine hydrochloride, and because the labels failed to bear any statement as to the proportion of acetanilide or cocaine contained therein. On a plea of guilty the defendant was ordered to pay a fine of \$10 and the costs.

Hamamelis Water.—A. J. Hilbert & Co., of Milwaukee, Wis., shipped in interstate commerce a product labeled "Distilled Extract of Witch Hazel (Hamamelis). Dr. Scott Medicine Co., Milwaukee, Wis.," and "For bleeding piles, blind piles, toothache, earache, sore throat, sore eyes, sore navels, bleeding lungs, insect stings, neuralgia, etc., for rheumatism, burns, scalds, bruises, kidney diseases, sprains, wounds, ulcers, lame back, frozen limbs, sore feet and corns." Samples were analyzed by government chemists. The product was declared to be misbranded in that the amount of alcohol it contained, 14.15 per cent., was not indicated on the labels and that the product was not a valuable remedy for the treatment of all the affections set forth on the label. The United States court for the eastern district of Wisconsin, on a plea of guilty, fined the defendant \$25.

"Elixir of Cod Liver Oil."—A drug product shipped in interstate commerce by Frederick F. Ingram & Co., of Detroit, Mich., was labeled "Our Compound Elixir of Cod Liver Oil. The active and medicinal principles of Cod Liver Oil, Morrhual, Butylamine, Amylamine, Iodine, Bromine and Phosphorous, combined with Fl. Extract Wild Cherry Bark, and the Hypophosphites of Sodium, Calcium, Potassium, Manganese, Iron, Quinine and Strychnine. . . . Distributed by the People's Pharmacy, M.

G. Gibbs, Mgr., 824 Seventh St., N. W., Washington, D. C." It was examined by government analysts and upon their report declared to be misbranded. Proceedings were instituted in the United States court for the eastern district of Michigan, alleging that the product was misbranded in that the statements on the labels were false and misleading because analysis failed to reveal any cod liver oil or medicinal principles thereof, and because the preparation did not replace with advantage cod liver oil emulsion as was stated on the label. The defendant entered a plea of nolo contendere and the court imposed a fine of \$5.

Blackberry Cordial.—A product labeled "H. F. L. Hamilton Blackberry Cordial, artificially colored, guaranteed under the Food and Drugs Act, Serial No. 3999-X. Henry H. Shufeldt & Company, Rectifiers and Wholesale liquor dealers, Apple Street, Peoria, Ill. Blackberry Cordial," was shipped in interstate commerce by Henry H. Shufeldt & Co., of Peoria. Chemists of the bureau reported that the product was not true to label. Libel proceedings were instituted in the United States court for the eastern district of Pennsylvania in which it was alleged that the product was adulterated and misbranded consisting "wholly or in part of a fermented solution of starch sugar artificially colored and flavored" which did not correspond in any particular to the blackberry cordial recognized by the National Formulary. It was also alleged that the presence of alcohol was not indicated on the labels. H. H. Shufeldt & Co., appeared as the claimant and consented to the libel, denying any intention to transgress the law. The court ordered that the goods be returned to the claimant upon the filing of a bond for \$400 conditioned that they should not be disposed of contrary to the law.

"Allen's Red Tame Cherry."—A plea of nolo contendere was entered in the United States court for the northern district of Ohio by the Lima Fruit Juice Company, of Lima, Ohio, charged with shipping in interstate commerce in violation of the law, a product labeled "Drink Allen's Red Tame Cherry—Refreshing, delicious, cooling—Artificially colored—not a wild cherry—The Lima Fruit Juice Company, Lima, Ohio." A sample having been analyzed by the bureau of chemistry the government alleged that the product was adulterated and misbranded in that "an artificial syrup was substituted wholly or in part for the genuine product as labeled" and in that the product was artificially colored to conceal inferiority and labeled so as to deceive the purchaser. The court imposed a fine of \$25 with costs.

"Wiseola."—The Wiseola Company, of Birmingham, Ala., shipped in interstate commerce a product labeled "Wiseola," which, upon being analyzed by the bureau of chemistry, was declared to be misbranded. Proceedings were instituted in the United States court for the northern district of Alabama alleging that the product contained cocaine the proportion of which was not indicated on the label. The defendant plead guilty and was sentenced to pay a fine of \$25 and the costs.

Silver Dragees.—On January 13th, 1910, the French Silver Dragee Company, of this city, was sentenced to pay a fine of \$100 by the United States court for the southern district of New York on a charge of shipping contrary to law a confectionery known as silver dragees which were alleged to be adulterated because they were coated with metallic silver. The defendant appealed from this judgment, which was reviewed on a writ of error by the United States circuit court of appeals for the second circuit. The judgment of the trial court was reversed, the appellate court ruling that it was not proven that silver coating of dragees in any way deceived the public or was injurious to health.

Solution of Hydrogen Dioxide.—John W. James doing business as Towns & James, of this city, shipped in interstate commerce a drug product labeled "U. S. P. H₂O₂, peroxide of Hydrogen. 3% Hydrogen Dioxide. Aq. Hydrogenii Dioxide, U. S. P. warranted to be of full U. S. P. strength and purity. . . ." A sample was analyzed by the bureau of chemistry and declared to be misbranded in that the label did not indicate that acetanilide was present. In the proceedings which were instituted in the United States court for the eastern district of New York the defendant filed a plea in bar of the criminal information setting forth that he had purchased the product from John Bene, a chemist, of Brooklyn, N. Y., from whom he could establish a guarantee. The court overruled the gov-

ernment's demurrer to this plea and dismissed the information.

Spirit of Camphor.—The bureau of chemistry reported that a drug product shipped by the Dow & Snell Company, of Toledo, Ohio, in interstate commerce with the label: "Triumph Brand, Pure Spirits of Camphor, manufactured by the Dow and Snell Company, Toledo," did not comply with the official standard. Proceedings were instituted in the United States court for the northern district of Ohio alleging that the product was therefore adulterated and was misbranded because the true strength was not stated on the label, neither was the presence of alcohol stated on the label. The defendant entered a plea of nolo contendere and was sentenced to pay a fine of \$25 and costs.

Oil of Turpentine.—A consignment of a drug product labeled "Crescent brand spirits of turpentine. Guaranteed by Gulf Manufacturing Company, Ltd., under the Food and Drugs Act of June 30, 1906, Gulf Manufacturing Company, Ltd., New Orleans, La.," was shipped in interstate commerce by the Gulf Manufacturing Company, of New Orleans. Samples analyzed by the bureau of chemistry were reported to be adulterated. Proceedings were instituted in the United States court for the eastern district of Louisiana where it was charged that the product was adulterated in that a mineral oil was present. It was also charged that the product was misbranded in that the label conveyed the impression that the product was oil of turpentine. The defendant plead guilty and was sentenced to pay a fine of \$10 and the costs.

Asafetida.—Albert Bruen, William P. Ritchey, and Charles C. Bruen doing business under the firm name of Bruen, Ritchey & Co., of this city, shipped in interstate commerce a drug product labeled "Gum Asafetida (Foetida ferula) 1 pound Bruen, Ritchey & Co., New York. Guaranteed under the Food and Drugs Act, June 30, 1906, Serial No. 1063." Samples were analyzed by the bureau of chemistry and following its report proceeding were filed against the company in the United States court for the southern district of New York charging that the product was misbranded in that the label did not indicate that the product contained much foreign material as was reported by the analysts. A plea of guilty was entered by the defendant, and the court imposed a fine of \$50.

Powdered Tragacanth.—The National Aniline and Chemical Company, of Brooklyn, N. Y., shipped in interstate commerce a product labeled "Powdered Gum Tragacanth" which upon analysis by the bureau of chemistry was alleged to be adulterated and misbranded in that it did not comply with the requirements of the United States Pharmacopoeia, and to be misbranded in that it was not tragacanth but a different article, "Powdered Indian Gum." The defendant plead guilty in the United States court for the eastern district of New York, and was fined \$25.

Explanation from Dr. Munyon.

Referring to the note in last month's CIRCULAR, page 45, regarding a plea of guilty and a maximum fine for misbranding certain Munyon remedies, Dr. Munyon writes that the plea was a technical one only, and that his house had always endeavored to live up to the letter and spirit of the food and drugs act.

It is doubtful whether an ordinary chemical examination would reveal the presence of medication in certain homoeopathic pellets. Dr. Munyon says that if his remedies contain no remedial value, then the trouble is with Hahnemann's system.

Some Sophistications in Massachusetts.

In recent bulletins of the Massachusetts Board of Health the following preparations were reported as "adulterated or improperly labeled" for the reasons stated in each case:

Az-ma-syde, made by the Asthma Remedy and Manufacturing Company, of Cornelia, Ga.; "contained cocaine."

Az-ma-syde capsules, made by the Asthma Remedy and Manufacturing Company, of Cornelia, Ga.; "contained acetanilide."

Clayton & Russell's standard wild cherry cordial, made by Adams & Co., of New York; "contained 18.88 per cent. of alcohol by volume."

Cholera mixture, made by Norris, Druggist of Boston; "contained 56.4 per cent. of alcohol by volume."

Coleman's pure extract of lemon, made by the Cole-

man Specialty Company, of Boston; "no oil of lemon present."

Equalizing drops, made by the Drs. Carpenter, of Lowell; "contained 60.1 per cent. of alcohol by volume."

Highland malt extract, made by the Springfield Breweries Company, of Springfield, Mass., "contained 6.71 per cent. of alcohol by volume."

Sun cholera mixture, made by the Markell Weston Drug Company (no address); "contained 19.28 per cent. of alcohol by volume."

Torelli pure olive oil, olio puro d'oliva garantito (no maker's name given); "cottonseed oil."

Vino de quina y cacao, made by Gutierrez Brothers, of Jerez; "contained 18.03 per cent. of alcohol by volume."

Public Health Legislation Offered.

A compromise measure designed to extend the scope of the public health and marine-hospital service and give to the greater bureau the name of the public health service was introduced in congress some weeks ago by Congressman Mann, of Illinois. This bill is in a way intended to take the place of the Owen bill of last year, to create a department of public health. The fate of such a measure is entirely conjectural; although the house committee seemingly favors the Mann bill there is some doubt of its being reported because the senate is apathetic with regard to the subject of public health.

It is stated that the American Medical Association is not satisfied with this measure as a substitute for the farther-reaching Owen bill; the representatives of the association, it is expected, will prepare a draft of a similar measure embodying its views. As was to be expected, the greater part of the objection offered at the hearings on the bill came from the National League of Medical Freedom, its representatives, losing sight of the rights granted under the constitution to the sovereign States and individual citizens have been quite indignant at what they call an attempt to force government-made medical practice into the very homes of the people. Anti-vaccinationists, religious scientists, homeopaths, and osteopaths have also appeared in opposition to the bill.

Medical "Freedom" and the Proposed National Bureau of Health.

The following letter, from Senator R. S. Owen, says the *Bulletin of the Committee of One Hundred on National Health*, should forever silence the charge that the Senator's bill for a national department of health will interfere with "medical freedom":

Answering the clipping sent me from the Cambridge Tribune, denouncing the department of health as pernicious, I reply that senate bill 6049, introduced by me, will not restrict the practice of medicine, will not interfere with the osteopath, the eclectic or any other school of medicine, will not interfere with the right of the individual to choose his own physician or interfere with anybody's medical freedom.

This argument is undoubtedly made by the "patent" medicine men who are engaged in promoting drug habits in the United States for the base purpose of making money, and dread governmental interference.

The United States could have nothing to do with controlling the licenses to practice medicine. Every school of medicine has more or less merit and no school of medicine should be permitted to dominate other schools of medicine and no school of medicine will be permitted to dominate the national department of health.

The department is needed to make more energetic national and international quarantine to prevent the pollution of interstate streams, and the protection of the public health through the constitutional agencies of the United States, strictly construed.

Prof. Clark Succeeds Prof. Hallberg.

Prof. A. H. Clark, of Chicago, has been elected to fill the vacancy on the pharmacopoeial committee of revision occasioned by the death of Prof. Hallberg. Prof. Clark is one of the younger leaders in pharmacy and is the present chairman of the scientific section of the American Pharmaceutical Association. He is a member of the faculty of the school of pharmacy of the University of Illinois.

J. W. T. Knox, who has been with Frederick Stearns & Co., for the past fifteen years or so, as editor of the *New Idea*, and in charge of their publicity department for a good portion of that time, has resigned and joined the force of Chester Kent & Co., of Boston. Mr. Knox is one of the best workers and most accomplished publicity men in the drug business, and will give a good account of himself wherever he may be.

Federal Regulation of the Traffic in Narcotics.

In his annual message to congress transmitted December 7th, 1909, President Taft recommended that "the manufacture, sale and use of opium and its derivatives in the United States should be, so far as possible, more rigorously controlled by legislation." In a subsequent message (February 21st, 1910) the president approved the suggestion that this country participate in the proposed international opium conference. In a special message transmitted January 6th, the president concurred in several recommendations made by the secretary of state relative to the desirability of adding to the effectiveness of the opium exclusion act, of enacting federal control of interstate commerce in habit-forming drugs, and of restricting the exportation of opium, morphine and cocaine under the international opium treaties. In view of this position of the chief executive and the public sentiment aroused by the investigations made under the auspices of the American delegates to the International Opium Commission, the introduction of measures designed to correct the narcotic evil was, naturally, to be expected. Four such measures have been offered in the house of representatives. Interest pharmacal, popular and congressional is centered in the one introduced by Mr. Foster, of Vermont, and known as H. R. 25241. It reads as follows:

A BILL.

Imposing a tax upon and regulating the production, manufacture and distribution of certain habit-forming drugs.

Be it enacted by the senate and house of representatives of the United States of America in congress assembled, That every person who imports, exports, produces, or manufactures opium, morphia, coca leaves, cocaine, alpha- and beta-eucaine, chloral, cannabis, their salts, derivatives or preparations, and every person who further manufactures, compounds, deals in or distributes the aforesaid drugs, or either of them, shall register with the collector of internal revenue of the district his name or style, place of residence and place where such business is to be carried on, and at the time of such registry, and on or before the first day of July in each year, every importer, exporter, producer, manufacturer, wholesaler manufacturing pharmacist, wholesale dealer or jobber shall pay to said collector a special tax at the rate of ten dollars per annum, and every retailer or distributor at retail shall pay to the said collector a special tax at the rate of one dollar per annum. That the word "person," as used in this act, shall be construed to mean and include a partnership, association, company or corporation, as well as a natural person; and all provisions of existing law relating to special taxes, so far as applicable, including the provisions of section thirty-two hundred and forty of the revised statutes of the United States, are hereby extended to the special tax herein imposed.

Sec. 2. That there shall be levied and collected upon all of the aforesaid original drugs, to wit, opium, chloral, cannabis and coca leaves now held by any such person, or hereafter produced or received, an internal revenue tax of 5 cents per pound or fraction of a pound on opium, chloral and cannabis, and 1 cent per pound or fraction of a pound on coca leaves, and said tax shall be paid by affixing to each package or other receptacle containing such original drugs, before removal of the same from a customs warehouse, their place of manufacture or storage, and before being offered for sale an engraved stamp to be affixed and canceled in such manner as the commissioner of internal revenue, with the approval of the secretary of the treasury may prescribe. That all provisions of existing law relating to internal revenue stamps, including all penalties imposed for the re-use of such stamps, so far as applicable, are hereby extended to the stamps provided for in this act, and all such original drugs and all packages and receptacles containing the same not stamped as herein provided shall be forfeited to the United States and may be sold, subject to the provisions of existing law, to any person who has paid the special tax imposed by this act: Provided, That where such original drugs after payment of the tax thereon, are further manufactured or compounded by any duly registered and bonded manufacturing chemist or manufacturing pharmacist, the packages or receptacles containing the same may, under regulations to be prescribed by the commissioner of internal revenue, with the approval of the secretary of the treasury, have affixed thereto, in lieu of the prescribed tax-paid stamps, such labels or marks as will show the payment of the tax on the original drugs before the same were further manufactured or compounded. And every person making application to register under the provisions of this act shall file with his application or registry a sworn statement showing to the best of his knowledge and belief the number of pounds of the aforesaid original drugs, whether such drugs are in their original shape or in preparation, in his possession at the date this act goes into effect, and the collector with whom such application is filed shall collect the tax on such original drugs at the rate of taxation as provided for in this section.

Sec. 3. That every person importing, exporting, manufacturing, remanufacturing, compounding or offering for sale any such drugs, their salts, derivatives or preparations shall keep such books, render such returns and give such bonds as the commissioner of internal revenue, with the approval of the secretary of the treasury, may from time to time prescribe.

Sec. 4. That it shall be unlawful for any person to send or transport in interstate commerce any of the aforesaid drugs, or any of their salts, derivatives or preparations, to any person other than a person who has registered and paid the special tax as required by section one of this act, or for any person to receive, in interstate commerce, any of the aforesaid drugs

or any of their salts, derivatives or preparations, other than a person who is registered and has paid the special tax as required by section one of this act; but nothing contained in this section shall apply to public hospitals or to public or scientific institutions.

Sec. 5. That under such regulations, and upon the filing of such notices, entries and bonds as the commissioner of internal revenue, with the approval of the secretary of the treasury, may prescribe, any of the aforesaid drugs, their salts, derivatives or preparations may be removed from a customs warehouse or from the place of manufacture or storage for export, free of the revenue taxes imposed by section two of this act; but upon the re-importation of any such drugs, their salts, derivatives or preparations, the same shall be held in the custody of the collector of customs until the required internal revenue stamps in payment of the tax and labels and marks imposed by this act have been placed thereon.

Sec. 6. That any person who purchases, receives or sells, transfers or gives away any of the aforesaid drugs, their salts, derivatives or preparations on which the taxes have not been paid or to which the labels or marks imposed by this act have not been affixed, or who violates or fails to comply with any of the requirements of this act, or any regulation issued thereunder, shall, on conviction, be fined not less than five hundred nor more than five thousand dollars or be imprisoned not less than one year nor more than five years, or both, in the discretion of the court.

Sec. 7. That whenever on trial for a violation of this act the defendant is shown to have or to have had possession of the aforesaid drugs, salts, derivatives or preparations thereof in violation of the meaning of this act, such possession shall be deemed sufficient evidence of such violation unless the defendant shall explain the possession to the satisfaction of the jury.

Sec. 8. That all returns required by this act shall be properly filed and recorded in the office of the commissioner of internal revenue and under such regulations as the commissioner of internal revenue, with the approval of the secretary of the treasury, may make. These returns shall be open to inspection and certified copies furnished to the proper officials of any State or Territory or district, or other territory under the jurisdiction of the United States, or any organized municipality thereof, any or all of whom shall be charged with the enforcement of State, district, Territorial, municipal or other local laws or ordinances regulating the prescribing, dispensing, sale or use of the aforesaid drugs, their salts, derivatives or preparations.

Sec. 9. That the sum of one hundred and fifty thousand dollars, or so much thereof as may be necessary, be, and hereby is, appropriated for the purpose of carrying into effect the provisions of this act, and the commissioner of internal revenue is authorized to appoint such agents, deputy collectors, inspectors, chemists, assistant chemists, clerks and messengers in the field and in the bureau of internal revenue as may be necessary to enforce the provisions hereof.

Sec. 10. That all laws relating to the assessment, collection, remission and refunding of internal revenue taxes, so far as applicable to and not inconsistent with the provisions of this act, are hereby extended and made applicable to the taxes imposed by this act.

Sec. 11. That nothing in this act shall be construed as modifying or revoking any of the provisions of the act of congress approved June thirtieth, nineteen hundred and six, known as the "Pure food and drugs act," or any amendments thereof, or of the act approved February ninth, nineteen hundred and nine, entitled, "An act to prohibit the importation and use of opium for other than medicinal purposes."

Two hearings have been held on this bill by the house committee on ways and means which has also conferred regarding the measure with the commissioner of internal revenue and Hamilton Wright, delegate to the International Opium Commission.

The first hearing occurred December 14th. Dr. W. Jay Schieffelin, of this city, president of the National Wholesale Druggists' Association and a prominent member of several anti-narcotic organizations was the first to address the committee. Dr. Schieffelin spoke in favor of the principles of the bill, but made several suggestions whereby he thought its phraseology would be improved and its provisions made less burdensome. One of these suggestions was that licensed dealers be given a numbered stamp so that wholesalers would know that on orders bearing the imprint of such a stamp the desired proscribed drugs might legally be supplied. He thought that errors might easily arise if the wholesalers were obliged to consult a list furnished by the revenue department, every time they received an order for one of the proscribed drugs. Another matter which to him seemed to need attention was that of unintentional violations. In this connection he suggested that the references to violations in the bill be qualified by the insertion of the word "knowingly." Dr. Schieffelin was of the opinion that most of the drug trade favored some provision to exempt from the application of the act preparations containing not more than a minimum proportion of a proscribed drug, but he did not personally favor such exemption.

Christopher Koch, of Philadelphia, vice-president of the Pennsylvania Board of Pharmacy and the leading figure in its war against the illegal sale of narcotics, gave a lengthy recital of the extent to which the drug habits prevail and the resulting conditions (see page 71). He

suggested that preparations containing not more than a minimum proportion of a proscribed drug be exempted from the provisions of the law. To require all violations to have been "knowingly" committed, he declared, would be to vitiate the purpose of the act.

Mr. Wright corroborated many of the statistical figures presented by Mr. Koch.

W. S. Richardson, of Washington, chairman of the committee on national legislation of the National Association of Retail Druggists, appeared in support of the measure considering it a necessary supplement to State laws. In the course of his remarks he presented the anti-narcotic resolutions adopted by the N. A. R. D. at the Pittsburg convention.

At the second hearing, held January 11th, C. A. West, chairman of the committee on legislation of the N. W. D. A., endorsing the purposes of the bill, asked that instead of requiring a stamp to be affixed to every container of a preparation containing a proscribed drug, a plan of serial-number identification be arranged. He was of the opinion that it would be desirable to limit the application of the measure to opium and coca and their derivatives. Mr. West also favored the qualification of references to violations by the insertion of the word "knowingly," and a change from a fixed fine of not less than \$500 to a fine in amount at the discretion of the court.

Mr. West's argument was supplemented by Dr. Schieffelin, who favored the serial number plan in preference to stamps. He asked specifically that the provisions of the measure apply to narcotic medicaments for infants.

A determined protest against the enactment of the bill in its present form was made by H. P. Hynson, of Baltimore, chairman of the committee on national legislation of the American Pharmaceutical Association. He urged that the proscriptions of the measure should be extended to apply to the synthetic substitutes for cocaine and the like, including alypin, novocaine, and holocaine. He further suggested that it would be very desirable to mention the trade-mark names of such derivatives as diacetyl morphine. Mr. Hynson stated that it was practically impossible to separate satisfactorily and effectively sellers and handlers of drugs into wholesale and retail classes as provided, the lines between them being in nearly all cases imperceptible. He thought that it would be wise to have only one class of registered dealers under the act, each paying a uniform fee, and that the bond of each should be proportioned to the amount of the drugs handled. He considered the bill faulty in the provision which requires special tax to be paid upon crude products and allows alkaloids and alkaloidal salts, that are separated and made from these crude drugs, to be imported free from the special tax and entirely without control. In his opinion the full privileges of the act should be extended to every person complying with the registration requirements and not only to manufacturers. The prohibition of interstate traffic in the proscribed drugs except between licensed persons he regarded as unwise as he considered that this would make it almost impossible for persons living near the boundaries of the States or temporarily in another State to secure needed medicines. He thought that some provision should be made for the recognition of physicians' prescriptions in such contingencies.

William Muir, of Brooklyn, severely criticised the general idea of the bill, and declared that it would not in any degree lessen the sale of habit-forming drugs, but practically amounted to a license for such sales and would result in increased difficulties and troubles for the retail pharmacists.

Testimony was given by several druggists and physicians against the provision of the bill, which exempts hospitals and public institutions. It was held that the license fee proposed is merely nominal and that it should be paid by all who handled habit-forming drugs in order that the best possible safeguard be thrown around their distribution.

C. B. Towne, of New York, declared that not one of the drugs proscribed in the measure should be eliminated, but that others should be added. He denounced the present conditions whereby anybody anywhere can obtain opium and morphine in wholesale quantities from even some reputable dealers, and hypodermic apparatus can be obtained without question from similar sources. Mr. Towne declared that the law should be so changed as to prevent the sale of any of these habit-forming drugs except upon a physician's prescription, and that no such prescription should be allowed to be refilled. Similar testimony was given by Dr. Alexander Lambert, of New York, who stated

that all of the drugs mentioned in the law are habit-forming.

Others heard were Mr. Woodruff an attorney representing several manufacturing firms, Donald McKesson, Albert Plaut, and T. P. Cook, all of this city.

Dr. H. W. Wiley argued for a most drastic law against habit-forming drugs. The sale of caffeine-containing drinks at soda fountains came in for a deal of condemnation by Dr. Wiley and Dr. L. F. Kebler.

The consensus of opinion is that the bill, perhaps slightly modified in phraseology, will be favorably reported by the committee.

When interviewed recently in connection with this anti-narcotic movement Dr. Wiley declared that the large number of drug habitués is due to the prescribing of harmful drugs by physicians when not necessary. He says that a physician should never prescribe opium or morphine unless it is for the purpose of saving a life. When a drug is given for some trivial illness, he continued, the odds are strong that the patient will continue to take the drug, and will finally become a slave to the habit. A physician who thus puts a patient in the grip of this terrible habit, he declared, has no right to practice his profession, and the indiscriminate prescribing of narcotics should be punishable by law.

Dr. Wiley attacked the claims of many of the so-called drug cures by saying that it is impossible to cure a person of the drug habit. The list is always growing, he said, and will never decrease unless drastic steps are taken to prevent the sale of drugs. Once a person gets the drug habit he never stops until he becomes a moral and physical wreck and finally dies. Dr. Wiley blames the physicians more than any other class for the growth of the drug habit.

As the first step toward stopping the spread of the drug habit, Dr. Wiley recommended a law requiring druggists to keep a record of all narcotics sold, which shall be made public. Once the amount sold is determined, with the use to which the drugs are put, he believes that the government will be in a position to fight the evil because one of the chief reasons for the spread of the drug habit is the fact that the gravity of the situation is kept secret. Dr. Wiley compared the misuse of drugs to the carrying of concealed weapons, and thought that, if light is thrown on the situation, public sentiment will be so aroused that steps will be taken to wipe out the traffic in drugs.

Pharmaceutical Chemists Meet.

The division of pharmaceutical chemistry of the American Chemical Society held its annual meeting at Minneapolis, December 29th, with Prof. A. B. Stevens, of Ann Arbor, in the chair. The annual address of the chairman who is a member of the pharmacopœial committee of revision was upon the timely subject of "Pharmacopœial Standardization." In it the work of the sub-committee on proximate assays was set forth at length.

In a preliminary report the committee on quantitative methods gave a summary of the results obtained in the analysis of mercury salts by the four members, using six processes. The committee was continued.

During the meeting the following papers were read: "Citro Compounds of Iron," by A. B. Stevens; "Camphor in Oil of Sassafras," by E. R. Miller and G. H. Marsh; "Assay of Gelsemium," by L. E. Sayre; "Rapid Determination of Sulphuric Acid with the Porous Clay Crucible," by F. Klein; and "Chemical Problems Suggested by the Cultivation of Medicinal Plants: Stramonium," by Edward Kremers.

Officers were elected as follows: Chairman, B. L. Murray; vice-chairman, A. D. Thorburn; secretary, F. R. Eldred; members of the executive committee, A. B. Stevens and L. F. Kebler.

American Chemical Society Election.

Coincidental with the annual convention of the American Association for the Advancement of Science, the council of the American Chemical Society met at Minneapolis during the last week in December. The council elected the following officers for the society: President, Prof. Alexander Smith, of Illinois; secretary, Prof. C. L. Parsons, of New Hampshire; treasurer, A. P. Hallock, of New York; editor of the *Journal of the society*, Prof. W. A. Noyes, of Illinois; editor of the *Abstract Journal*, Prof. A. M. Patterson, of Ohio; and editor of the *Journal of Industrial and Engineering Chemistry*, Prof. M. C. Whitaker, of New York.

Meetings of American Pharmaceutical Association Branches.

Baltimore.—The annual meeting of the Baltimore branch of the American Pharmaceutical Association was held January 19th. Reports from the officers and committees occupied the greater part of the meeting.

Secretary and Treasurer E. F. Kelly reported a gratifying increase in membership during the year, and said that the financial condition of the branch was excellent.

Although the chairman of the committee on professional relations, J. F. Hancock, was prevented by illness from being present, the plans of the committee for a joint meeting with the physicians of the city were discussed. The project met with universal approval.

Mr. H. P. Hynson read a communication from the council of the parent association in reference to the collection of a fund to be used as a memorial to the late Prof. C. S. N. Hallberg. Mr. Hynson paid a tribute to Prof. Hallberg's great work for American pharmacy and explained the purpose of the fund. This matter was further discussed by Messrs. Thomas, Hancock, and Meyers, and the proposition was heartily endorsed by the branch.

J. F. Hancock, J. B. Thomas, and Louis Schultze were appointed a committee to prepare memorial resolutions for Louis Dohme and E. E. Quandt, lately deceased members.

The election of officers resulted in the choice of the following: President, C. L. Meyer; vice-president, J. E. Hancock; secretary and treasurer, E. F. Kelly; committee chairmen: Science and practice of pharmacy, J. C. Wolf; membership, H. A. B. Dunning; education and legislation, E. W. Hodson; and professional relations, J. F. Hancock. The branch will next meet February 16th.

Chicago.—Specific anti-parasitic medication was the subject of the discussion at the meeting of the Chicago branch of the American Pharmaceutical Association held December 20th. The subject was introduced in a paper by Dr. Bernard Fantus entitled "Recent Advances in Specific Anti-Parasitic Medication Including Ehrlich's '606'."

Dr. Fantus called attention to the analogy in action between several anti-parasitic remedies commencing with quinine as used in malaria. He contrasted the quinine treatment of malaria with the mercurial treatment of syphilis, saying that it is impossible to use enough mercury to do more than inhibit the growth of the spirocheta pallida, hence the limitations of mercurial treatment. Comparison was made also with the use of salicylates in rheumatism. Dr. Fantus said that rheumatism can positively be checked by heavy doses of salicylates if given at the onset of the disease, while if smaller doses are given an immunity to the drug is established and the treatment thereby made much more difficult. In all of these cases said the doctor there is great danger in treatment by inexperienced and incompetent persons. He considered the treatment of venereal diseases by pharmacists as exceedingly harmful.

The speaker then discussed in a general way the anti-toxins, bacterins and vaccines, and after dwelling upon the disease known as trypanosomiasis, he discussed Ehrlich's "606." Incidentally, Dr. Fantus regarded with disfavor the way of designating this remedy by a number, saying that it reminded him of a certain nostrum. He was glad to find that the new name of salvarsan had been adopted.

Dr. F. G. Harris, introduced by Dr. Fantus, described the appearance of salvarsan and how it was put up, and discussed the methods of using it. He deprecated the extravagant claims which have been made in the lay press for this remedy, saying that probably not more than 30 per cent. of syphilitic cases are curable, and that the great advantage of salvarsan is in the rapidity with which the lesions disappear after treatment.

Dr. A. W. Stillians was then introduced by Dr. Fantus as one who had recently visited Germany and had experience first-hand with the use of this remedy. Dr. Stillians discussed the advantages and disadvantages of the drug and the method of employing it.

Prof. Puckner said that Dr. Hilpert of the American Medical Association chemical laboratory had recently examined a sample of "606," which was put up in a sealed glass tube. The statement had been made, continued the speaker, that the tubes were filled with nitrogen, yet the odor given off upon breaking the tube resembled that of methyl alcohol. Chemical analysis, he stated, showed the presence of about 34 per cent. of arsenic, together with an

anilin derivative, and a phenol. He discussed briefly the chemistry of arsenic and pointed out that this element existed in a very active form in the "606" combination.

Dr. Stillians had brought with him a stained specimen of spirocheta pallida, which he showed under the microscope.

The members of the branch expressed their appreciation of this interesting discussion by giving a rising vote of thanks to the physicians and Prof. Puckner for their exposition of the subject.

The special committee appointed at the preceding meeting offered the following resolutions regarding the death of C. S. N. Hallberg, and they were duly adopted:

Since by the death of Prof. C. S. N. Hallberg the Chicago branch of the A. Ph. A. has lost one of its most earnest and highly valued members, and pharmacy in general an aggressive champion;

Be it resolved, That we, the members of the Chicago branch of the A. Ph. A. in regular meeting assembled, do publicly acknowledge our great sorrow at his death; and,

Be it resolved, That we give expression to our deep sense of obligation to him for his untiring efforts in behalf of this organization and to the sense of loss his death has brought upon us and the pharmacists of America; and,

Be it further resolved, That these resolutions be spread upon the minutes of the branch and copies be sent to the pharmaceutical press for publication.

A communication from Dr. A. Gehrman representing the Chicago Medical Society was read. Dr. Gehrman stated that his society would be glad to co-operate with the members of the branch in any form of memorial services for the late Prof. Hallberg, and suggested, that while the medical society could not undertake the raising of a subscription for the reason that several such projects are at present before the society, still he thought it quite possible that individual physicians would be pleased to take part in such a movement. A committee consisting of Messrs. Gathercoal, Becker and Clark was appointed by the president to confer with the representatives of the medical society regarding memorial exercises. Secretary Day spoke of the proposed action of the American Pharmaceutical Association now under consideration by the council, and having for its object the appointment of committees representing the branches and the members of the association generally, to raise a fund to pay off the mortgage on the Hallberg home.

Mr. Eliel presented an invitation which was read by the secretary, inviting the branch to meet at South Bend, Ind., at an early date. The invitation was favorably received, but it was decided to defer the selection of a date until the next meeting.

The nominating committee offered a list of candidates for the several offices of the branch, which was held over for the election at the January meeting.

At this meeting, held January 12th, the project of holding a meeting at South Bend, Ind., was taken up, and it was decided to meet there February 24th, and devote the meeting to a consideration of the new preparations of the National Formulary.

Leo Eliel opened a discussion of the rumored deferring of the launching of the journal of the parent organization. This discussion resulted in the adoption of a resolution expressing as the sense of the branch the desire that the publication plans be carried out according to the action taken at the 1910 meeting of the A. Ph. A.

Some informal discussion of the scope of the National Formulary was indulged in by Messrs. Eliel, Potts, Snow, Abbott, and others.

Following this was the election of officers resulting in the unanimous choice of the following candidates selected by the nominating committee: President, C. A. Storer; vice-presidents, I. A. Becker, S. K. Sass, and Miss Charlotte Stimson; secretary and treasurer, W. B. Day; committee chairmen, Membership, C. W. Patterson; education and legislation, C. H. Avery; practice, T. I. Scheips; medical relations, Dr. Bernard Fantus; and public relations, James H. Wells.

New England.—J. G. Godding, of Boston, president-elect of the American Pharmaceutical Association, addressed the meeting of the New England branch of the association held at Boston, January 11th. He thanked the New England members for their support of his candidacy, and spoke enthusiastically of the prospects for an excellent meeting of the parent body at Boston this year.

Pharmaceutical conditions were considered briefly in a talk by A. E. Brunelle, of Fall River, Mass., the new member of the Massachusetts Board of Pharmacy.

F. A. Hubbard, of Newton, a former member of the board

and ex-president of the National Association of Boards of Pharmacy, gave a talk on the education of young drug clerks, which epitomized his observations made during his long service as examiner and proprietor. While Mr. Hubbard recommended most highly a course of study at a college of pharmacy, he had very definite views as to the responsibilities of proprietors toward their clerks. He believed, as a matter of fact, that the average employer did not do his duty and was actually robbing the clerk of the educational help which should be given, because a clerk is engaged at a small salary with the expressed condition that he is to learn the drug business, while in reality, he learns only what he can pick up himself, usually in a faulty, disconnected manner.

Mr. Hubbard's sentiments were roundly applauded.

The meeting was addressed by R. B. Gable, of New York, on behalf of the national membership committee. He related in outline the various progressive movements in the history of the A. Ph. A., and dwelt particularly on the project of supplying a journal of considerable size free of charge to the members.

All told the meeting was a very interesting and enjoyable one.

New York.—Thirty and more persons were present at the meeting of the New York branch of the American Pharmaceutical Association held January 9th. Dr. James J. Walsh, the dean of the medical department of Fordham University, this city, was the speaker of the evening, having for his subject "The Problems of the Pharmacist in Ancient and Modern Times."

Treasurer Joseph Weinstein reported a balance on hand of \$23.52.

For the committee on legislation and education T. P. Cook quoted from the Foster anti-narcotic bill in congress (see page 105) and stated that the committee had opposed the measure in its present form believing that its purpose would be vitiated by the amount of detail required for its enforcement. Messrs. Raubenheimer, McIntyre, Hitchcock, Mayo, and McElhenie expressed similar views on the subject; and the committee was instructed to continue its opposition to the bill.

Dr. G. C. Diekman, chairman of the committee on the progress of pharmacy, gave a synopsis of recently published articles on the following subjects: "A New Reaction for Strychnine," "A Sterilizable Hand Balance," "Gummi Arabicum Resiccatum," "Apparatus for the Rapid Filling of Ampuls and the Sterilization of the Same," "The Sterilization of Dusting Powders," "A New Method of Estimating Quinine in Cinchona Preparations," "From Atoxyl to Erlich-Hata '606,'" and "The Detection of Ethyl Alcohol in Methyl Alcohol." After some discussion concerning the danger from tetanus genus in dusting powders, the report of the committee was received with thanks.

G. H. Hitchcock reported that the advisability of joining with the branch in a meeting this spring was being considered by the comitia minora of the county medical society.

The death of J. Le Roy Webber, of Brooklyn, was announced by the secretary, and duly recognized.

Dr. Walsh was introduced by Chairman Raubenheimer. He treated his subject as having the following phases: The number of drugs used; the regulation of the practice of pharmacy; the relations between physicians and pharmacists; substitution; proprietary medicines; and fixed prices. All these, he said, would by the average person be characterized as phases of modern conditions, but they have one and all confronted the apothecary time and time again since the earliest days of medicine.

The Doctor first took up in his recountal the woes of the drug man in ancient Egypt, beginning some 4500 years before the Christian era. He gave a synopsis of the Ebers papyrus and its monographs on 700 drugs in use from 2500 to 1700 B. C. In those days, he said, there were specialists and there was much knowledge of things medical that is to-day looked upon as something new.

From Friedlander's Roman Life and Manners under the Early Empire the speaker took several illustrations to show that the prescribing of proprietary preparations was then in vogue, Pliny having commented upon the fact. Galen in turn pointed out the sophistication practiced by herbalists. Several amusing instances of the antiquity of political "graft" and the suffragette movement were related in this connection. Similar conditions, said the speaker, continued down through the so-called Dark Ages.

Dr. Walsh next told of the beginnings of university education in medicine in the thirteenth century, and the medical and pharmacal law of Frederick II for the Sicilies. This law required of physicians eight years of preparation, educational and practical, before they were licensed. It forbade the physicians to have any business connections with any apothecary or to conduct an apothecary shop. It required apothecaries to testify to the purity of their wares, fixed the prices that might be charged for drugs, and limited the number of apothecary shops. Its provisions extended to the collection and inspection of drugs; negligent inspectors were punished by death, and sophisticating dealers lost their wares.

The Doctor did not subscribe to the belief that the drug sellers of the Renaissance period were great poison sellers. Neither did he believe that deaths from poisoning were as common as some historians relate. Many of the reputed deaths by poisoning he declared were due to pathological conditions.

In summing up, the speaker stated that if one looked closely into the conditions of former years he would find a great similarity to those of the present time; problems arise, are solved, and are forgotten, to arise again and require solution. Latter day progress he thought was in a commercial direction to the detriment of art, learning and ethics. He believed that the physician should assist the pharmacist to redeem his calling from commercialization by enlisting his services in the chemical phase, the laboratory work, of medicine. Laboratory diagnosis and biological work he said should be turned over to the trained pharmacist just as the preparing of medicine was long ago, and the physician should devote himself more to clinical study, to the advantage of physician, pharmacist, and patient.

Various phases of historical pharmacy were touched upon in the discussion following Dr. Walsh's address, in which Messrs. Mayo, Diner, McElhenie, and Raubenheimer, and Doctor Gordon participated. A number of historical volumes were exhibited. The thanks of the assemblage were extended to Dr. Walsh by a rising vote.

As a sort of annual address the retiring president, Otto Raubenheimer, urged the membership committee to get busy; advised that to the committee on professional relations be entrusted the planning of joint meetings with physicians heretofore in the hands of a special committee; and that the members try out the formulas suggested for inclusion in the Pharmacopœia and the National Formulary.

The branch expressed its appreciation of the efficient presidency of Mr. Raubenheimer.

The election of officers resulted in the choice of the following: President, G. H. Hitchcock, of New York; vice-president, Dr. G. C. Diekman, of New York; secretary Hugh Craig, of New York; treasurer, Joseph Weinstein, of New York; committee chairmen: membership, W. F. Macdowell, of Ellis Island; progress of pharmacy, Otto Raubenheimer, of Brooklyn; education and legislation, T. P. Cook, of New York; and professional relations, T. D. McElhenie, of Brooklyn.

Philadelphia.—At the meeting of the Philadelphia branch of the American Pharmaceutical Association held January 3d, the discussion was concerned with the new chemo-therapy method of treating disease and particularly with the Ehrlich treatment for syphilis. The speakers were Dr. Judson Daland, Dr. F. E. Stewart, and J. L. Turner.

Dr. Daland, who had spent several months in the Ehrlich laboratory reviewed the early efforts of that famous German biological chemist toward the confirmation of his theory regarding the direct action of chemicals on the parasites of disease. The speaker described the Ehrlich-Hata "606" and exhibited some in sealed glass tubes. He told how when exposed to air, it changed color from yellow to a gray or brown with changes in its properties; in some instances it had been known to become extremely poisonous. As marketed, said Dr. Daland, salvarsan is not susceptible to light or heat. He described the methods of reducing it to a liquid for injection. It is necessary to neutralize the acid, and dissolve it either in saline solution or sterile olive oil. Paraffin, he explained, had been used but with little success. The use of alcohol in converting it into a liquid for injection was, he said, not necessary.

Dr. Daland compared the several methods of introducing the Ehrlich remedy into the human system setting forth the dangers to be looked for with each. He was of the opinion it was too soon by four or five years to make a definite statement relative to the permanency of the re-

sults of this treatment. In closing he contrasted the Ehrlich researches with the popular practice of attempting to fit a drug to an unknown disease or symptom.

Mr. Turner explained in detail the science of chemotherapy. He outlined the various steps that had been taken by Ehrlich before the final result had been obtained and mentioned some of the difficulties and successes that he must have encountered.

Dr. Stewart spoke of the difference between the patent laws of Germany and of this country, saying that he understood that salvarsan had been patented in the former country and doubtless would be in this. He was inclined to the belief that the inventor had a perfect right to some return for his time and costly experiment. He was inclined to regret the registering of the trade-mark in this country, because under the law of the United States this course would virtually mean a perpetual monopoly here.

In the course of the regular business, Prof. Henry Kraemer presented a report on the proposition to establish a journal of the American Pharmaceutical Association. The committee after citing its approval of the project and suggesting minor changes and ideas, recommended that instead of launching the journal July 1st, next, as determined at the Richmond meeting, the publication of the initial issue be postponed until January 1st, 1912. The principal reason for this was that no person had as yet been found to occupy the position of editor. The report was received and referred to the national committee on the journal of the American Pharmaceutical Association.

Washington.—A continuation of the discussion of standards for non-pharmacopœial drugs called for in the National Formulary occupied the City of Washington branch of the American Pharmaceutical Association at the meeting held January 14th. Several members offered descriptions of such drugs. Adonis, aletris, althea, and aralia were described by V. R. Chestnut; ammoniac, calcium glycerophosphate, diacetyl morphine, and quinidine, by H. C. Fuller; anethol, oil of bergamot, oil of myrcia, and oil of orange-flowers, by E. K. Nelson.

In the course of the discussion, attention was called to the difficulty of providing satisfactory standards for many of the little-used botanical drugs, particularly American botanicals, as these articles are usually variable in origin and are generally contaminated with admixtures of various kinds. It was stated that the source or supply of American drugs could not well be regulated or controlled, because they are usually collected by untrustworthy persons and are bartered or sold repeatedly before they reach any one at all familiar with their true nature or use; and because it is perhaps asking too much to expect the dealer in drugs to be able or even willing to remove all extraneous substances from his wares. Mr. Fuller averred the necessity of investigation in order that chemistry may be of avail in the differentiation of drug plants. This led S. L. Hilton to point out the difficulty of assaying glucosidal drugs and the readiness with which drugs of this class deteriorate. Mr. Chestnut stated that glucosidal drugs deteriorate because of the presence of enzymes, particularly oxidizing enzymes, which in the presence of light and moisture, have a tendency to decompose glucosides. It was also pointed out that to preserve glucosidal plant drugs it was necessary to destroy the enzymes or ferments present, or at least to preserve the drug in such a way as to make their presence innocuous. Dr. Reid Hunt also spoke of the far-reaching influence of oxidases present in a plant, upon its appearance and composition.

Lewis Flemer described a method of preserving plant drugs containing glucosides which he believed was first introduced by Dr. H. H. Rusby. This consisted in placing muslin bags containing freshly calcined lime in the container with the drug. His experience with this method has not been altogether satisfactory. In this connection it was said that in Switzerland where the preservation of drugs over calcined lime was suggested in the Pharmacopœia, it is a common practice to use a tin container with a well-fitting lid and a double bottom. Between the bottoms of this container freshly calcined lime is placed, and the drug is placed in a bottle, not necessarily tightly stoppered, over the lime. This container it was declared has the double advantage of preserving the drug from light as well as moisture, and would no doubt be practicable and advantageous for drugs like digitalis. The need for the preservation of plant drugs with especial precaution was discussed at some length, and in the course of this discussion it was pointed out that in the supplement to the Dutch Pharmacopœia just issued it is provided that all of the narcotic leaf-

drugs are to be protected from light; a precaution that is well worth considering, and one that should be introduced in the forthcoming edition of our own Pharmacopœia.

Dr. Hunt, referring to the stability of digitoxin, said that digitalis is probably not so readily decomposed under ordinary conditions as is generally believed. He called attention to some experiments that had been made by Dr. Edmunds, who demonstrated that a very old digitalis leaf and one that had not been preserved with any particular caution was found to be still active. S. L. Hilton reported some observations that had recently been made on a sample of powdered digitalis leaf, at least three or four years old, which was found to be quite active, medicinally.

Prof. H. E. Kalusowski called attention to some of the points of difference between quinine and quinidine. He also pointed out the distinguishing tests for and the similarity between the two substances in their property of fluorescing in aqueous solutions.

The preservation of essential oils was discussed at some length by Messrs. Nelson, Chestnut, and Hilton, who were agreed that the presence of light materially affected the delicate odor of many of these products.

To determine the value of the proposed standards which were under discussion, it was suggested that copies of the descriptions be sent to persons interested who might be in a position to criticize and to elaborate on such tests or requirements as were included; these criticisms to be considered at a later meeting of the branch.

Southeastern Auxiliary of the National Association of Boards of Pharmacy.

In connection with the regular meeting of the Virginia Board of Pharmacy, at Richmond, there was held January 4th the second annual meeting of the Southeastern auxiliary of the National Association of Boards of Pharmacy. In addition to the members of the Virginia board there were present, Louis Schulze, of the Maryland Board of Pharmacy; and N. C. Downs, of the Delaware Board of Pharmacy.

Mr. Schulze in an informal talk explained the objects of the meeting. He believed that the members of the boards of Maryland, West Virginia, Virginia, and the District of Columbia, which constitute the auxiliary, should discuss the matters of importance to the several boards, and that the conclusions should be carried to the national association. He mentioned as important subjects preliminary educational requirements, a satisfactory curriculum for colleges of pharmacy, and the advisability of meeting with an affiliated board at the time it was holding an examination.

T. A. Miller, of Virginia, laid especial stress upon the advantage to be gained by members of the various boards visiting other boards while in session.

The methods adopted by the Delaware, Maryland and Virginia boards in conducting their examinations were very fully explained and discussed by all present. Mr. Downs explained the methods adopted by his board, stating that the practical work was conducted by two members, and that each member examined only the answers to the questions that he had prepared. Mr. Miller expressed the hope that in the near future the Virginia board would rate the answers to questions at 80 per cent., allowing the candidate 10 per cent. for his correctness in writing, English, method of expression, etc., 5 per cent. for neatness, and 5 per cent. for speed.

Officers were elected as follows: President N. C. Downs, of Delaware; and secretary, T. A. Miller, of Virginia. It was decided that each board appoint a vice-president and report the appointment to the secretary.

National Association of Pharmacologists.

A regular monthly meeting of the National Association of Pharmacologists was held at Columbus, Ohio, December 27th. There was an election of county committeemen. And it was announced that the establishment of a benefit fund would be deferred until the first annual meeting which will be held in June.

The projection and furtherance of plans for a national home for indigent druggists was discussed and the co-operation of other drug and pharmaceutical organizations will be solicited.

By resolution a vote of thanks was extended to the pharmaceutical press for the publicity given to the affairs of the organization.

Lecture on Standardization before New York Alumni.

At a well-attended meeting of the Alumni Association of the College of Pharmacy of the City of New York, held January 11th, alumni and students of the college and their friends listened to a lecture on "Standardization, Chemical and Physiological," by Prof. C. E. Vanderkleed, of Philadelphia.

Prof. Vanderkleed prefaced his address with a statement of the impossibility of properly treating such a broad subject in one lecture and therefore he would limit himself to setting forth the general principles surrounding and underlying the standardization of drugs. He defined standardization as the adjustment of a substance or thing to a certain adopted "standard" size, or strength, or quality, which "standard" must, of course, be more or less arbitrarily chosen, or agreed upon, by all of the parties concerned with the manufacture, sale, or use of the substance in question. The term, he said, was often abused in this country and inaccurately used. He stated that there was a difference between an assayed drug and a standardized one, that an assayed substance was not necessarily a standardized one, and standardization went farther and included final adjustment to a definite strength. He said that it was almost a commercial impossibility to obtain standardized crude drugs in the United States with the exception of powdered opium, and he considered that to furnish them would be a difficult matter, and unnecessary because, with the possible exception of opium and ipecac, crude drugs were seldom given internally and standardization of the crude drug did not imply uniformity of the galenicals made therefrom. He gave as reasons for this a lack of uniformity in packing a percolator, uncontrollable or difficultly controllable natural variations such as those of temperature, the fact that the weak portion of the percolate, which, in the case of fluidextracts must be concentrated, may contain an appreciable amount of active principle which is thus subjected to the possibility of decomposition, that variation in the structure and thickness of cell walls of different lots of drugs assaying alike may enable the menstruum to be more effective in one case than in the other; and while the result of the assay may have given a figure which represents absolutely the sum total of alkaloids present in the drug, it would not necessarily follow that this drug will yield the same percentage of total alkaloids to percolation with an alcoholic or hydro-alcoholic menstruum. Experience, he said, had taught him that drugs which assayed identically or nearly so, gave percolates that varied greatly. He cited as an example a quantity of cinchona which assayed over 8 per cent. of total alkaloids but on percolation yielded only 3 per cent. of alkaloids, not over a half of which were of the ether-soluble variety; using an acidified menstruum resulted in a heavy precipitate in the percolate, yet experts had pronounced the drug botanically and microscopically true to name.

Prof. Vanderkleed believed that as many preparations as possible should be standardized. The pharmacist, he said, must furnish the physician with accurately calibrated weapons that will reflect credit upon the profession as armorers to the fighters of disease. The revision committee of the United States Pharmacopoeia and the best thinkers in the two professions of pharmacy and medicine, he continued, recognize the advantage of extending the work of chemical and physiological standardization and of authorizing the inclusion of the latter in the next U. S. P. This, he said, placed a great responsibility on the members of the revision committee. He praised the revision committee of 1900 for putting the present U. S. P. "in the lead of all pharmacopœias of the world, with respect to standardization, both as regards the number of drugs and preparations provided with assay processes and the excellency and accuracy of the methods adopted." He believed that in the ninth revision the number would undoubtedly be further augmented.

He was of the opinion that the professional pharmacist of to-day would be the financially successful pharmacist of to-morrow and that this type of pharmacist was ready to aid in any movement toward progress, such as standardization represented. This movement, he declared, while seemingly directed against the pharmacist, was so only in so far as he tried to stem the tide of progress. If he worked with it and furthered it by his own contributions, he would, in the speaker's belief, help himself professionally, socially and financially.

Prof. Vanderkleed advised those who use but small quantities

of standardized preparations to procure them in quantities suited to their needs, because in opened and partly filled containers they deteriorate more or less rapidly. He thought that as a rule not enough consideration was given to the preservation of this class of preparations which should be kept in a cool place and not exposed to the light. Even this would not prevent the deterioration of fluidextract of coca which, he remarked, he was almost tempted to say, he would be more pleased to dispense the more it had deteriorated.

One phase of the standardization of galenical preparations which he thought deserved mention was its disturbing effect on color uniformity. A preparation made from a different lot of drug, possibly from a new year's crop, and accurately standardized, he said, is exceedingly liable to differ in color, or in specific gravity from some previous lot. Preparations cannot possibly be adjusted to alkaloidal content, color, and constant total solids, and he could see no remedy for this difficulty. In his estimation it needs no correction; the pharmacist should educate the physician and the patient to the foregoing truth, and if the ignorance of the patient will not permit him to be convinced, and the psychologic effect is liable to be lost upon him, it is the physician's business to obviate the difficulty.

The speaker said that perhaps the greatest obstacle to progress in scientific standardization lies in the difficulty of knowing what the medicinally active constituents of certain drugs are, and next comes the difficulty of separating them one principle from another, which may possess little, or no or an adverse medicinal action. Here the pharmaceutical chemist must rely upon the pharmacologist, because the physician wants a preparation that will always have the same pharmaco-dynamic effect, and hence, under the same conditions, the same therapeutic effect. The principal end to be accomplished by the assay of a pharmaceutical preparation, he said, was to secure a means of measuring the therapeutic activity.

Considering next methods of standardization the speaker said that the first method to become extensively used in this country for the standardization of drug preparations, that of precipitating the alkaloids by means of a standard Mayer's reagent, was empirical and crude, because no differentiation between important and unimportant alkaloids could be obtained by it, substances other than the alkaloids being determined were sometimes, also precipitated, the composition of the alkaloidal precipitates varied with conditions of dilution, temperature, etc., and the end-reaction was not sharp and was difficult of observation. Still, he continued, it was a beginning, a step in the right direction, and led to the more accurate alkalimetric and iodometric methods of assay, until today the assay of alkaloidal drugs has reached a high state of accuracy and perfection. Some of the methods for the assay of galenicals and other drugs, he stated, are yet in a crude condition, but they should not be condemned or discarded until it is possible to supplant them with more accurate processes.

Because few drugs contain one single active constituent that represents the entire medicinal value of the drug, he declared that it would always be impossible to make the results of chemical assay absolutely indicative of therapeutic value. However, he believed it possible in most instances to secure invaluable information by the determination of the total alkaloids, or of some readily determined single alkaloid.

As a general fault of the present U. S. P. methods, Prof. Vanderkleed mentioned the inadequate amount of immiscible solvents specified in the descriptions of the processes; and he thought that the pharmaceutical chemist should be left free to "shake-up" with larger quantities if he believed this necessary to make sure that the extraction was complete. As another possible improvement he suggested the use of more satisfactory indicators in volumetric titrations; methyl-red, (para-dimethylamine-azo-benzol-orthocarbonic acid) he said, would give a bright violet-red with a slight excess of acid and was colorless or slightly yellow in the presence of alkalies. Any improvement looking toward the elimination of doubt, he stated, would help to improve the processes.

In speaking of physiological assays he said that, if it were granted that accurate results might be obtained, the question arises as to what drugs these tests should be applied to, and as to what the present-day practice has to offer in tried and true assay processes.

Summing up, Prof. Vanderkleed declared that standardization marks a progressive altruistic movement toward the day when drugs will be more accurately and effectively

and hence less extensively used for the cure of disease. He urged that the movement be not opposed because of this trend, saying that pharmacists, physicians and chemists are first men, then citizens, and thirdly, members of their profession, and to serve humanity first is the best way to bring honor to the profession and success to its members. He praised the professionalism that uttered not one word of protest against Ehrlich's discovery on the ground that this one remedy would undoubtedly mean the loss to pharmacists and physicians of hundreds of thousands of dollars. And he advised his hearers to strive altruistically for the standardization of drug products, real standardization, the kind that points out weaknesses as well as strength.

Prof. Vanderkleed was formally thanked by the assemblage for his instructive discourse.

After adjournment there were music and dancing to be enjoyed by many, and refreshments were served.

Kings County Society.

That the legislative season is with us again would have been apparent to even the casual visitor to the meeting of the Kings County Society, held January 10th. The Foster bill was the all-absorbing topic. William Muir, chairman of the legislative committee, declared that this proposed measure was a distinct menace to the retail drug trade and one of the most unreasonable measures that he had ever heard of, one which besides working a hardship seemed in no way to be of particular benefit to anyone. He did not think that it would restrict in any way the sale of narcotic drugs and expressed surprise that the chairman of the legislative committee of the National Association of Retail Druggists should have expressed himself in favor of such a law. He thought that possibly he himself might not be interpreting the bill aright and asked for the opinions of the other members.

Otto Raubenheimer was of the opinion that an anti-narcotic wave was sweeping the entire country, but he could not understand the objects of this bill. He did not think it reasonable to expect the druggist to keep account of every grain of narcotic drugs sold.

For the benefit of those who were not familiar with the provisions of the bill, it was read by H. S. Noël, of THE DRUGGISTS CIRCULAR. C. A. Mayo spoke of the provisions of the measure in detail. The society decided to send Mr. Muir to Washington to be present at a hearing on the bill to occur the next day and to voice the sentiments of the Brooklyn druggists in opposition to the bill as it now reads.

Prof. W. C. Anderson, who was chairman of the committee on resolutions of the N. A. R. D. at the Pittsburg convention, spoke of the intentions of the anti-narcotic resolutions adopted by that association and expressed surprise that Chairman W. S. Richardson of the national legislative committee should have favored the Foster bill. He thought perhaps Mr. Richardson had not properly understood its import.

The chairman of the committee on pharmacy, Otto Raubenheimer, stated his intention to review the new German Pharmacopœia (see page 92) at a meeting in the near future. He announced that the speaker at the February meeting would be J. L. Mayer who would speak on "Milk Analysis."

Mr. Raubenheimer then introduced the speaker of the day, E. L. King.

Mr. King, who spoke on "Advertising Methods for Retail Druggists," took as his theme the following formula:

Right Goods + Right Prices + Right Service + Advertising = SUCCESS.

There are, he said, two kinds of druggists: those who look forward and those who look backward—and some who look not at all. The constant changes in commercial life must be met, he stated, and the druggist to be successful must adapt himself to them. Twenty-five years ago the druggist did not do business the way he must to-day, he said, because at the present time keeping a drug store is a commercial enterprise and must be treated as such. While he thought that it was possible to combine the ethical and the commercial in pharmacy, he did not think that the purely ethical store in the majority of cases would be a success financially.

In his opinion much advertising that would cost the druggist scarcely anything was not taken advantage of. He mentioned personality: the druggist who should be

pleasant is sour and unaccommodating—and blames business. It costs nothing, said he, to keep a store clean, but he averred that 75 per cent. of the Brooklyn druggists have fly-specked goods on their counters. He thought that shelf bottles with pretty gilt labels did not sell goods and believed that if those bottles were replaced with the goods that many druggists put under the counters the profits would be greater. The best proof of this, he said, was the fact that the most successful stores display the goods that the people want as attractively as possible.

He stated that he had been asked many times what was the matter with the retail drug business and his reply had always been: "Nothing." In his belief the business was better than ever. This he thought was indicated by the investments in the retail drug business being made by capitalists. In reply to a question as to what the small druggist was going to do, he expressed the belief that the small dealer will survive. In spite of the fact that many say that the druggist is a convenience and some say that is all he is the speaker was of the opinion that he is a necessity.

In the history of the drug business, he said, there had been revolutions. First, the cut-price druggist caused one, and the next came when the cutter realized he was on the wrong track and began to talk quality. He believed that the third revolutionizer was at hand in the chain-store and that it was here to stay and must be reckoned with. In his opinion the corporation chains were going to get all the business they could and the small druggist must meet them on their own ground by advertising.

He felt that undoubtedly some of the less efficient stores would be eliminated, but believed that this would be a good thing for both the public and the drug trade. He thought that a poor druggist was analogous to a poor grocer, he must resort to subterfuge and inferior quality to get along.

The druggists should seek to reach the trade along the lines of least resistance, he said, and their salvation lies in their own efforts because the man who gets something for nothing usually pays a high price. Legislation, he declared, will not force people into a store if they do not wish to come. He advocated cut prices for advertising purposes because it was a trade truism that people will go where they are served the cheapest. He did not consider the cutting of prices on proprietaries to be ruinous. To support his point he computed the difference in the gross profits of a store in which the usual small proportion of proprietaries is sold when these are sold at full prices and when they are sold at a cut rate. For the slight difference, in his opinion, the druggist was sending away many profitable customers.

Judicious advertising, he contended, was not a waste; it was an investment. He mentioned as adjuncts clean windows, a variety of displays and a smile that would not "come off" and he pointed out the necessity of keeping at advertising on a definite plan. In his opinion the local druggist could well afford to set aside at least 3 per cent. of his profit for advertising.

In conclusion Mr. King advised his hearers to advertise and display the goods that the people in the particular locality wanted, and to tell them about these particular goods in their own language.

Mr. King was officially thanked by the society for his interesting talk.

Charles Heimerzheim announced for the trade matters committee that the postal cards, for the purpose of calling the attention of physicians to seasonable N. F. and U. S. P. preparations, were ready for distribution and would be mailed to any member upon application. The sum of \$100 was appropriated for the propagandic work of the trade matters committee.

Adjournment came somewhat later than usual because of the lengthy address.

Brooklyn Association.

One of the best attended and most interesting meetings of the Brooklyn Pharmaceutical Association held in some time was called to order by President David Westheimer at 11 P. M. January 23d.

The regular order of business was suspended to permit the reading and discussion of a paper by J. Leon Lascoff, of this city on "Acacia in Dispensing."

Mr. Lascoff began his paper with a description of acacia and a summary of its history. He then told of the many uses it had in the drug stores of the present time. He

illustrated his talk with a number of copies of prescriptions written in large letters for the convenience of all. In this connection he elucidated the changes that the use of a small amount of acacia will make in the appearance of what might otherwise be unsightly mixtures. In addition to the reproduced prescriptions, Mr. Lascoff used, the better to illustrate his points, many mixtures compounded with and without acacia. Following the showing of each prescription, the speaker invited such general discussion and comment as the members might see fit to make.

Concerning a prescription calling for 5 grammes of pyramidon to be dispensed in 60 c.c. (mils) of water, Prof. Joseph Kahn thought that the druggist would not be justified in using acacia even though it did improve the appearance of the prescription. He said that he would preferably call the doctor and enlighten him in regard to the insolubility of pyramidon.

Otto Raubenheimer said that he did not advocate the use of acacia in this instance because so little was known of pyramidon and its interaction with other substances even though acacia was seemingly an inert substance. He thought it should be the duty of the manufacturer to print on the label of such drugs the dose, solubilities, and incompatibilities.

Mr. Lascoff stated that he merely was endeavoring to show what acacia would accomplish; its indispensability in some instances and in others the trouble it might obviate, were its use permissible.

The next prescription which seemed to merit discussion was one containing creosotal in a mixture of glycerin syrup of orange, and peppermint water. Mr. Raubenheimer stated that he had had experience with similar mixtures and for a time had added oil of sweet almonds; afterward he had secured good results from the use of oil of sesame. Prof. Kahn said that creosotal was nothing more or less chemically than carbonated creosote and was to be kept in colored glass bottles. He thought that if the mixture in question was dispensed in a colored glass bottle little or no trouble would be experienced, although he had not experimented with it. Alexander Gardner was of the opinion that the change of color in such a mixture was due to the formation of a phenol.

David Westheimer questioned the wisdom of the liberal use of acacia in prescriptions without first consulting the physician. Mr. Lascoff said that in his experience he had always found the physician agreeable to the addition of such an inert substance which would improve the prescription. Mr. Lascoff assured his audience that he was most decided in his views against substitution, yet he felt justified very often in the addition of a slight amount of a substance which did not alter the therapeutical value of a prescription.

A prescription calling for creosote and balsam of tolu brought forth a suggestion from Thomas Lamb that he had secured very good results with these ingredients by using beeswax to make a mass. Mr. Raubenheimer said that balsams of a resinous nature, albeit pure, often caused trouble, even in the mixing of ointments and acacia, he had always found, was of great value. Questioned about ichthylol and olive oil in a mixture, Mr. Lascoff said he would experiment. This occurred in connection with the discussion of a prescription calling for balsam peru and olive oil. Mr. Gardner thought the reason for the immiscibility of the balsam was due to the presence of water in it, because if the balsam was heated and the water driven off no trouble was experienced, and admixture with olive oil was easy. Prof. Kahn thought it inadvisable to heat the balsam. Mr. Raubenheimer said that chemists knew but little of the composition and characteristics of balsam of peru and that heat might drive off some of the volatile constituents, he had found he said that petrolatum mixed very well with it [but will not stay mixed.—Editor THE DRUGGISTS CIRCULAR] and therefore liquid petrolatum might prove satisfactory where it was possible to use it.

At the close of Mr. Lascoff's paper, Secretary L. J. Cohen read a prescription calling for 3 drams of potassium acetate, 8 drams of tincture of chloride of iron, 4 drams of diluted phosphoric acid, and enough infusion of digitalis to make 4 ounces. He had been informed that once this prescription had been filled and the product was colorless; when it had been dispensed at another store it was not colorless, and he asked the cause of such a difference. Various theories were advanced but no satisfactory explanation was given.

A communication was read from the Manhattan Pharmaceutical Association relative to co-operation in endeavor-

ing to secure better provisions for the sale of insecticides containing benzin. The matter was referred to the conference committee.

The Foster bill (see page 105) was discussed. The consensus of opinion was not antagonistic to the bill providing it was modified somewhat in phraseology.

Thomas Lamb stated a grievance having to do with the manner in which legislative matters were being handled by the Conference of Local Pharmaceutical Associations, it being his belief that the Brooklyn Association was not receiving due consideration. S. L. Neier differed with Mr. Lamb in some respects, believing that in the work of the conference the Brooklyn association had always had a voice.

Mr. Lamb stated that ex-Assemblyman R. S. Conklin contemplated furthering a State measure that would relieve the druggists of New York city from supervision by the municipal board of health.

An invitation was extended to Prof. Kahn to address a meeting of the association in March, and to Mr. Raubenheimer to speak at the last meeting in February.

Mr. Lascoff was officially thanked for his interesting paper and was elected to honorary membership in the association. Mr. Raubenheimer and Prof. Kahn were also thanked for their participation in the discussions.

After adjournment the members enjoyed a chicken supper and were entertained by a legerdemain performance.

Westchester County Association.

It was not a very much occupied meeting that was held by the Westchester County (N. Y.) Pharmaceutical Association at Yonkers, January 11th; nevertheless the members present found enough matters of interest to occupy their attention for several hours.

Almost exactly at noon President J. H. Thomas, of Yonkers, called the meeting to order, and Secretary J. B. Sackett, of Tarrytown, proceeded with the reading of the minutes.

The first matter to call for discussion was brought up when the secretary read a communication from the member who had been expelled at the preceding meeting (see the CIRCULAR for November, 1910, page 599), in which the action of the association was questioned, the ex-member contending that he had not been informed of the charges against him and did not know wherein he had violated the laws of the organization. As the matter was basically one of price-cutting it was not thought wise to furnish the offender with advertising material by going into the case again; the investigating committee said it had given the member an opportunity to be heard. Messrs. Schlesinger, Sackett, Smith, Leonard, and Townsend discussed the communication, and the secretary was instructed to tell the writer that the association could see no reason to change its position assumed at the preceding meeting.

Mr. Sackett, who is treasurer as well as secretary, presented a report on the year's finances, showing a balance on hand of \$4.22, with unpaid dues amounting to about \$100. A special effort will be made to clean up these outstanding assets. Several bills were ordered paid.

The resignation of one member was accepted.

W. H. Smith, of White Plains, reported that the propagandic committee was awaiting the pleasure of the medical society with regard to a joint meeting. He read from a communication from the National Association of Retail Druggists quoting prices on propagandic literature. After considerable discussion of various methods of distributing this literature it was decided to arrange for using the N. A. R. D. supply and first to try the plan of having it sent from Chicago to the physicians.

For the telephone committee John Roemer, of White Plains, reported that the public service commission had not yet attempted any regulation of telephone rates or commissions but would take cognizance of any question raised in relation to this matter. F. A. Russell, of Tarrytown, said that he would take up the matter with Vice-President Thurber of the telephone company.

C. A. Heiss, of Yorktown Heights, of the special committee on new members, reported that two druggists of Brewster were desirous of joining the association and he expected to have their applications soon.

Memorial resolutions for the late J. F. Helmecke, of Tuckahoe, were adopted.

An amendment was made in the constitution to permit druggists in the adjacent counties to become members of the association.

The chairman called upon Hugh Craig, of THE DRUG-

GISTS CIRCULAR, who responded with an informal talk relative to the apparent trend toward the separation of pharmacy from the sale of nostrums and side-lines. He said that the physicians were beginning to look for professional scientific assistance from the pharmacist and it behooved the latter to make the most of this opportunity to advance himself and his calling.

W. H. Leonard, of Tarrytown, spoke of the advantages of mutual inter-insurance.

Officers were elected as follows: President, John Roemer, of White Plains; vice-presidents, J. A. Hart, of Ossining; and C. A. Heiss, of Yorktown Heights; secretary and treasurer, J. B. Sackett, of Tarrytown; executive committee, L. J. Schlesinger, of Yonkers; W. H. Leonard, of Tarrytown; and F. G. Koch, of Mamaroneck.

After adjournment dinner was served, and after dinner there was an inspection of the new Yonkers city hall under the guidance of Mayor T. J. Lennon, who was once a druggist.

The April meeting will be held at Ossining.

German Apothecaries' Society.

President George Kleinau opened the meeting of the New York German Apothecaries' Society, held January 5th, with an expression of seasonable greetings to those assembled.

Secretary E. A. Boetzel read a number of communications, among them being an invitation from the Manhattan Pharmaceutical Association to join in a general committee for the purpose of opposing the levying of the \$50 license fee required of druggists, by the city, for the sale of inflammable substances. This matter was referred to the chairman of the business committee, S. V. B. Swann.

Reports were read by G. C. P. Stolzenburg, librarian, and Emil Roller, chairman of the committee on scientific papers. O. P. Gilbert, the chairman of the entertainment committee, also made his report and read the report of P. F. Gebicke, relative to the death-benefit fund.

President Kleinau announced that he had appointed the same members to serve as chairmen of the various committees who had held these offices during the previous year. E. C. Goetting was elected chairman of the delegates to the United German Societies.

As delegates to the 1911 meeting of the American Pharmaceutical Association at Boston, the society chose Dr. W. C. Alpers, Otto Raubenheimer, Emil Roller, Louis Berger, and Hugo Kantrowitz.

The death of Albrecht Wortmann was announced from the chair.

Mr. Goetting read a lengthy communication which he had addressed to Health Commissioner Lederle in the matter of the anti-morphine ordinance. The writer was seeking information, and the only reply he had had was a statement from the commissioner's secretary to the effect that the board of health still had the matter under advisement.

Mr. Roller introduced the speaker of the evening, Dr. F. von Oefe, who spoke on "The Compounding of Prescriptions by the Ancient Egyptians and Babylonians as Illustrated by Hieroglyphics and Cuneiform Writings," a subject which has been especially studied by the Doctor. The lecture, which was a very full account of the state of pharmacy among those peoples was supplemented by an exhibit of a valuable collection of pertinent material. This material was furnished by Prof. Mueller, to whom a letter of thanks was sent.

President Kleinau expressed the hearty thanks of the society to Dr. von Oefe at the conclusion of his talk.

New York College Meeting.

At the regular quarterly meeting of the College of Pharmacy of the City of New York, held January 17th, the constitution was amended so that in the future the meetings will be held on the third Tuesday of January, March, May and October.

Appropriate resolutions were adopted in memory of several members who had died during the year and provision was made for memorial pages in the official minutes.

A feature of the meeting was a symposium on Ehrlich's new remedy commonly called "606," and to be known as "salvarsan." A large audience of physicians, pharmacists and students was present.

The first paper was presented by Dr. Robert A. Hatcher,

of Cornell University; his subject was "The New Chemo-Therapy." He was followed by Dr. John A. Fordyce, of Bellevue Hospital, who told of the clinical results so far observed with Ehrlich's remedy. The last speaker was Herman A. Metz, who spoke on "The Role of Dye Stuffs in Medicine."

The several speakers were officially thanked for their valuable papers.

National Pharmaceutical Society.

The annual meeting of the National Pharmaceutical Society, and the first in its new home, was held in this city on the evening of January 9th. The society has leased rooms at 2320 Eighth avenue, and they are being fitted up appropriately.

The meeting was called to order by President W. E. Crews. Owing to the time consumed in the election of officers and by several discussions, the presentation of the reports of the officers and committees was postponed until the next meeting.

The following officers were elected for the ensuing year: President, Warren Guest; vice-presidents, J. R. Wall, H. N. Butler, and J. S. Jacobs; treasurer, J. G. Ahrens; and secretary, E. L. Fendler.

It was decided to bestow upon the retiring president the title of honorary president. The secretary was empowered to choose at his discretion an assistant secretary whose remuneration would be regulated by the secretary with the approval of the board of directors.

At a meeting of the society held January 16th, the reports of the officers and committees were read. These were indicative of a flourishing condition of the affairs of the society.

A commercial travelers' auxiliary was organized at this meeting, the dues of which will be donated to the society for propagandic work. The auxiliary elected the following officers: President, Edward Schott; vice-president, Julius Eisenstein; and secretary and treasurer, Maurice Feinberg.

With the aid of the auxiliary the society planned to hold a "smoker" and "house warming" on February 20th.

The date for the regular meeting was fixed as the first Monday of each month.

A junior auxiliary to the N. P. S. was organized at a meeting of unlicensed clerks held at the society's rooms, January 19th. The objects of this auxiliary are to be similar to those of the society. Meetings will be held the first and third Thursdays of each month at the society's rooms. The dues will be \$1 per annum.

The juniors elected officers as follows: President, L. P. Lippman; vice-president, M. Rochman; secretary, E. Mandt; and treasurer, V. J. De Matthaëis.

Long Island Drug Club.

Twenty-six applications for membership were acted upon favorably at a meeting of the Long Island Drug Club held January 16th.

Otto Raubenheimer extended an invitation to the members to be present at the meeting of the New York College of Pharmacy, on the next evening, to hear a symposium on Ehrlich's "606."

A communication was read from the Brooklyn Pharmaceutical Association inviting the club members to attend the B. P. S. meeting on January 23d.

At the conclusion of the business session, bowling teams of druggists and salesmen contested on the alleys until a late hour.

The next meeting will be held February 20th.

Blizzardites Will Dine.

The "blizzard class" of the College of Pharmacy of the city of New York, being that which was graduated in 1888, will hold its annual dinner at Terrace Garden, Fifty-eighth street, this city, Monday, March 13th, at 7 p. m. Prof. C. F. Chandler and Prof. C. W. Parsons will be the guests of honor.

Notifications of an intention to be present should be sent early to Dr. G. C. Diekman, at the college.

The most recent boards of pharmacy to adopt the National Pharmaceutical Syllabus wholly or in part as a standard at their examinations are those of South Carolina and Vermont. The Southern Association of Boards of Pharmacy has recommended to the constituting boards the adoption of the syllabus.

Misbranding Charged in Pennsylvania.

In interpreting the pure drug law of that State the Pennsylvania Board of Pharmacy, to which the enforcement of the act is entrusted, ruled that when a preparation sold under an official name varies from the official standard the amount of variation must be stated plainly on the label; that is, if a tincture of opium represents but 8 per cent. of opium, the label must tell that it is only four-fifths official strength and not merely state the percentage of the drug. The board gives as its reason for this ruling the belief that to the lay purchaser a statement of a percentage content means nothing as he does not know the required percentage.

Under this ruling actions have been brought against the Philadelphia representatives of Parke, Davis & Co., of Detroit, Mich., and of Sharp & Dohme, of Baltimore, Md., charging that samples of essence of pepsin obtained from the defendants were not labeled as required with regard to their variation from the official product.

Both cases will have a court trial, the defendants claiming that they have complied with the law, and that the board exceeded its authority in formulating the regulation in question.

In a statement issued by the home office Parke, Davis & Co. refer to the suit against their representative as a friendly test case to determine the legality of the board's ruling.

A different sort of misbranding is charged against the Penn Pharmacal Company, of Philadelphia, a concern which manufactures supplies for physicians. The bill of complaint sets forth the contention that the labels upon the company's products are not true indications of the composition.

A hearing in this case occurred January 10th. Prof. C. H. La Wall, testifying as a witness for the prosecution, said that "*kalarine*," labeled as being "a definite compound, well adapted for administering to patients with cardiac lesions," was a mixture of "acetanilide, sodium bromide, caffeine, and sodium bicarbonate, artificially colored green with a coal-tar dye."

Dr. H. C. Wood, testified that the mixture was far from a safe one to be given to patients with cardiac lesions.

Dr. V. C. Roberts, formerly chemist and general manager for the defendant concern, stated that in most cases the product put into the bottles did not conform strictly to the published formula. "*Malic*," he said, was a "malting grape juice" containing no unfermented grape juice. Prof. La Wall said that he had found almost 8 per cent. of alcohol in this preparation, which was exploited to take the place of alcoholic medicaments.

The president of the company was held in \$600 bail for a court trial.

Philadelphia Association.

Much interest was centered in the annual meeting of the Philadelphia Association of Retail Druggists, held January 6th. One of the features of the meeting was the discussion of the question as to whether the association should reaffiliate with the National Association of Retail Druggists. Action on this matter was deferred pending an investigation which it is expected will be completed in the course of thirty days. Charles Rehfuess said that at a conference of members representing both sides of the controversy it had been decided not to settle the matter at the annual meeting, but to await the result of the investigation.

The officers and chairmen of the various committees reported on the work accomplished during the year. The report of the telephone committee through its chairman, D. J. Reese, was especially interesting. The question of adequate commissions was discussed and referred to a special committee.

Officers were elected as follows: President, Christopher Koch; vice-presidents, W. E. Lee, D. J. Reese, and Morris Herson; recording secretary, N. A. Cozens; financial secretary, C. W. Shull; treasurer, G. W. Fehr; members of the executive committee, W. A. Carpenter, Frederick Keller, W. E. Cline, H. L. Hetrick, Dr. J. F. Meade, W. H. Umstead, G. T. Lambert, A. G. Keller, Charles Leedom, D. H. Ross, H. A. Kalbach, M. D. Allen, R. T. Blackwood, J. C. Peacock, and C. F. Schmickle.

H. O. Curtis, a visiting druggist from Camden, N. J., was elected an honorary member of the association.

Chicago Association.

Progress was the keynote and all the rest of the score in the reports of officers and committees presented at the annual meeting of the Chicago Retail Druggists' Association held January 10th. President L. P. Larsen sounded the first gratifying note summarizing and calling attention to the work that had been done in the various departments. He was loud in his praise of his fellow-officers for the manner in which their duties had been fulfilled.

The report of Secretary I. M. Light showed that the membership roll had been increased during the year by the addition of seventy-seven names; that more dues had been collected than ever before; that the members were well protected by casualty insurance; that the collection department was doing excellent work; and that peace reigned once more between the association and the Chicago Medical Society.

Treasurer C. A. Storer reported disbursements running well into thousands of dollars and a balance on hand, including bonds, of over \$3,500.

The executive committee through its chairman, J. P. Crowley, submitted a report on the work of the past year. In this were reviewed the protective cases, which had showed the good that casualty insurance was doing; the telephone situation, and what the association had been doing to prevent competing companies from operating and lowering the profits of the druggists. The committee was pleased with the results which had been secured through co-operative newspaper advertising, and asked the support of all the members in this work. The report also touched upon the association's relations with the jobbers, which were reported to be co-operative and most friendly. The chairman considered the collection department a valuable asset; and with regard to the ice-cream situation, he spoke regretfully of the set-back received last summer, and advised the members to hang together in protection of their best interests.

The reports of the other committees were all received with much enthusiasm.

Officers for the year were elected as follows: President, B. A. C. Hoelzer; vice-presidents, W. H. Brown, J. J. Chwatal, and E. A. Hartke; secretary, I. M. Light; treasurer, C. A. Storer; trustees, J. P. Crowley, J. F. Forbrich, J. S. Mahaffy, J. J. Boehm, W. H. Armbricht, Edward Williams, Frank Kremer, O. F. Niethammer, and T. F. Cannon.

Purity of Indiana Drugs.

In a recent issue of the *Bulletin* of the Indiana Board of Health it is reported that during the year 1910 the drug laboratory analyzed 444 drug products of which 202, or 45.4 per cent. were found to be at variance with the provisions of the law either as to composition or as to labeling. The results of the analyses are tabulated as follows:

Article Examined.	Legal.	Illegal.	Total.	Per Cent. of adulteration.
Alcohol	2	0	2	0.0
Asthma cure	1	1	2	50.0
Bay rum	1	0	1	0.0
Beeswax, white	1	1	2	50.0
Beeswax, yellow	1	0	1	0.0
Bismuth subnitrate	1	0	1	0.0
Carbolic acid	1	0	1	0.0
Castor oil	9	0	9	0.0
Cough syrup	2	0	2	0.0
Cream of tartar	1	0	1	0.0
Essence of Jamaica ginger	4	1	5	20.0
Essence of peppermint	0	1	1	100.0
Fluidextract of belladonna	6	7	13	53.8
Fluidextract of hyoscyamus	5	7	12	58.3
Glycerin	2	0	2	0.0
Linseed oil	17	4	21	19.0
Lime water	1	0	1	0.0
Oil of turpentine	2	0	2	0.0
Olive oil	14	1	15	6.6
Paregoric	33	20	53	34.4
Potassium nitrate, commercial	4	0	4	0.0
Quinine sulphate (capsules)	2	0	2	0.0
Sulphur	3	0	3	0.0
Spirit of camphor	28	64	92	69.5
Spirit of niter	0	2	2	100.0
Tincture of arnica	6	1	7	14.2
Tincture of benzoin	1	0	1	0.0
Tincture of capsicum	2	2	4	50.0
Tincture of iodine	26	46	72	63.8
Tincture of iron	17	16	33	48.4
Tincture of myrrh	2	0	2	0.0
Tincture of opium	16	13	29	44.8
Tincture of opium, deodorized	8	9	17	52.9
Witchhazel	1	0	1	0.0
Miscellaneous drugs	13	6	19	26.0
Totals	242	202	444 (Av.)	45.4

News of the Pharmacists in the Federal Service.

The following official announcements have been made:

NAVY.

Pharmacist G. H. Klock was detached from the naval medical supply depot at New York and ordered to duty at Fort Mifflin, Pa.

Pharmacist T. N. Phillips, on duty at Norfolk, Va., was retired December 16th.

PUBLIC HEALTH AND MARINE HOSPITAL SERVICE.

Pharmacist G. W. Iltis received a grant of seven days' leave of absence from December 14th.

Pharmacist G. I. Van Ness, Jr., received a grant of nine days' leave of absence from December 21st.

Pharmacist E. B. Scott received a grant of six days' leave of absence from December 19th.

Pharmacist H. Megaw received a grant of two days' leave of absence from December 19th.

Louis Strempel was appointed as a pharmacist of the third class December 14th.

Pharmacist Henry Gahn received a grant of seven days' leave of absence from December 19th.

Pharmacist L. C. Spangler received a grant of three and a half days' leave of absence from December 28th.

Pharmacist F. L. Brown received a grant of seven days' leave of absence from January 2d.

N. A. R. D. Committees.

Harry B. Guilford, of Rochester, N. Y., president of the National Association of Retail Druggists, has appointed the usual standing committees, of which the chairmen, respectively, are as follows:

National legislation—W. S. Richardson, of Washington.

Form of organization—J. T. Roe, of Mobile.

U. S. P. and N. F. propaganda—John G. Krul, of Louisville.

Telephone—W. Bodemann, of Chicago.

Pharmacy laws—M. S. Kahn, of Baltimore.

Fraternal relations—William Ruess, of Cleveland.

Transportation—S. C. Yeomans, of Chicago.

Procter memorial—William Muir, of Brooklyn.

Auditing—Otto Groenland, of Cincinnati.

Canadian Proposed Poison Law.

A bill has been introduced in the Canadian parliament providing that "any person who himself or his agent sells, offers for sale, attempts to sell, exposes for sale or gives away any poison without doing so under the authority of a medical certificate or prescription is guilty of a misdemeanor, and is liable to a fine of not less than \$100 or imprisonment of not more than six months in jail, or both."

The bill does not apply to poisonous insecticides. Provision is made that all poisons be kept and dispensed in characteristic bottles.

Prof. Remington Visits Cuba.

During the holidays Prof. Joseph P. Remington, of Philadelphia, visited Havana, Cuba, and spent two weeks in the island. The Professor was the guest of honor at several banquets during his stay, and met the majority of the men prominent in Cuban pharmaceutical affairs.

As a result of Prof. Remington's visit it is expected that a branch of the American Pharmaceutical Association will be organized at Havana. The Cuban members are desirous of having the association meet at their capital in a year or so.

International Opium Conference.

It is reported from Washington that plans are completed for an international opium conference at the Hague, beginning May 30th next. The countries to be represented are China, Great Britain, France, Germany, Italy, Japan, The Netherlands, Persia, Portugal, Russia, Siam, and the United States. The conference will deal with the problems attending the misuse of cocaine and morphine, as well as of opium.

The *Chemist and Druggist* (London) relates that while an advertisement of a well-known proprietary pill was appearing in a Belfast paper the same paper contained an account of the death of the woman who according to the advertisement had been completely cured by the pill.

News of the Pharmacy Boards.**List of Board Secretaries.**

In the following list are to be found the names and addresses of the secretaries of the various boards of pharmacy of the country. When the date and place of the next meeting of a board are known they are given also.

Secretaries are requested to keep us informed as to dates and places.

ALABAMA—February 15th, at Montgomery. E. P. Galt, Selma.

ARIZONA—April 12th, at Phoenix. A. G. Hulett, Phoenix.

ARKANSAS—May 8th, at Little Rock. J. F. Dowdy, Little Rock.

CALIFORNIA—Louis Zeh, San Francisco.

COLORADO—S. L. Bresler, Denver.

CONNECTICUT—March 7th, at Hartford. J. A. Leverty, Bridgeport.

DELAWARE—April 4th, at Newark. Albert Dougherty, Wilmington.

DISTRICT OF COLUMBIA—April 13th and 14th, at Washington. S. L. Hilton, Washington.

FLORIDA—D. W. Ramsaur, Palatka.

GEORGIA—C. D. Jordan, Monticello.

IDAHO—April 11th, at Idaho Falls. J. M. Starrh, Shoshone.

ILLINOIS—March 9th, at Chicago. F. C. Dodds, Springfield.

INDIANA—April 11th and 12th, at Indianapolis. W. H. Ruder, Salem.

IOWA—April 4th, at Des Moines. E. J. Moore, Des Moines.

KANSAS—February 15th, at Wichita. W. E. Sherrieff, Ellsworth.

KENTUCKY—J. W. Gayle, Frankfort.

LOUISIANA—May 9th to 11th, at New Orleans. F. A. Earhart, New Orleans.

MAINE—February 8th to 9th, at Augusta. F. W. Bucknam, Skowhegan.

MARYLAND—April 12th and 13th, at Baltimore. Ephraim Bacon, Roland Park.

MASSACHUSETTS—Every Tuesday between September 1st and July 1st, at Boston. P. J. McCormick, Boston.

MICHIGAN—E. J. Rogers, Port Huron.

MINNESOTA—April 18th, at Minneapolis. C. T. Heller, St. Paul.

MISSISSIPPI—April 4th, at Jackson. L. H. Wilkinson, Greenwood.

MISSOURI—March 13th, at Springfield. C. E. Zinn, Kansas City.

MONTANA—T. M. Kehoe, Billings.

NEBRASKA—February 7th to 9th, at Omaha. A. V. Pease, Fairbury.

NEVADA—May 3d, at Reno. R. L. Prouty, Tonopah.

NEW HAMPSHIRE—February 22d, at Nashua. F. H. Wingate, Nashua.

NEW JERSEY—H. A. Jorden, Bridgeton.

NEW MEXICO—A. J. Fisher, Santa Fe.

NEW YORK—May 24th and 25th, at New York, Albany and Buffalo. W. L. Bradt, Albany.

NORTH CAROLINA—F. W. Hancock, Oxford.

NORTH DAKOTA—March 21st, at Fargo. W. S. Parker, Lisbon.

OHIO—F. H. Frost, Columbus.

OKLAHOMA—J. C. Burton, Stroud.

OREGON—C. G. Huntley, Oregon City.

PENNSYLVANIA—February 18th, at Harrisburg. L. L. Walton, Williamsport.

RHODE ISLAND—February 7th, at Providence. J. E. Brennan, Pawtucket.

SOUTH CAROLINA—March 15th, at Charleston. F. M. Smith, Charleston.

SOUTH DAKOTA—April —, at Brookings. E. C. Bent, Dell Rapids.

TENNESSEE—I. B. Clark, Nashville.

TEXAS—R. H. Walker, Gonzales.

UTAH—April 18th and 19th, at Salt Lake City. W. H. Dayton, Salt Lake.

VERMONT—D. F. Davis, Barre.

VIRGINIA—April 25th, at Richmond. T. A. Miller, Richmond.

WASHINGTON—P. Jensen, Tacoma.

WEST VIRGINIA—May 5th and 6th, at Wheeling. A. Walker, Sutton.

WISCONSIN—April 11th and 12th, at Madison. Edward Williams, Madison.

WYOMING—C. B. Gunnell, Evanston.

District of Columbia Board.

The following applicants for registration were successful at the examination conducted by the District of Columbia Board of Pharmacy, January 12th and 13th:

R. T. Bailey, Jr., J. C. Hardey, R. A. Judd, A. W. Kenner, B. R. Minshall, and Boris Naiman.

The next meeting of the board will be held April 13th and 14th.

Illinois Board.

At the December meeting of the Illinois Board of Pharmacy, held at Chicago, thirteen of the sixty-four applicants for registration as pharmacists and twelve of the thirty-eight applying for assistant's license were successful. They are the following:

As pharmacists—Frank Annibale, Luba Arnopol, Silvio Camodeca, W. J. Carrick, B. C. Chambers, D. N. Fidler, C. J. Oberg, Charles Shipman, and Samuel Zak, all of Chicago; C. C. Carlson, of Calona; R. L. Lindstrom, of Rock Island; Julius Sucherman, of Maywood; and L. R. Wernicke, of Winnetka.

As assistants—Julius Antonow, A. W. Cramer, C. S. Eftaxiopoulos, Samuel Eppelsheimer, A. R. Fortier, J. P. Heinrich, W. H. Hendrickson, W. D. Jenkins, L. P. Levy, F. C. Strickland, Jr., and L. A. Watson, all of Chicago; and R. G. Rosenstone, of Cambridge.

The next meeting of the board will be held at Chicago, March 9th.

Maine Board.

Three of the eight candidates for registration were successful at the examination conducted by the Maine Board of pharmacy at Augusta, December 14th. The names follow:

E. E. Gardner, of East Machias; R. B. Josselyn, of South Hanson, Mass.; and G. L. Wentworth, of Old Orchard.

The next meeting of the board will be held at Augusta, February 8th and 9th.

Massachusetts Board.

But one examination was held by the Massachusetts Board of Pharmacy during the month of December. As usual this took place at Boston. Fifteen candidates for registration were examined and the following were successful:

As pharmacists—A. L. Bourgeois, of New Bedford; Hector Jacques, of Boston; and R. W. Murphy, of Stoneham.

As assistants—E. A. Dunkerton, of Charlestown; E. A. Hamilton, of Roxbury; Harry Korobkin, of New Bedford; P. J. Laporte, of Lowell; A. C. Lussier, of Nashua, N. H.; C. M. Mathews, of Cochituate; and A. E. Ouellet, of Lawrence.

Missouri Board.

An unusually large number of candidates for registration were examined at the meeting of the Missouri Board of Pharmacy, held at Jefferson City, January 9th. The following sixty-six applicants were successful:

As pharmacists—A. I. Allen, of Chillicothe; Leo Barken, of St. Louis; W. D. Bartholomew, of Rockport; Mrs. Alice Bickel, of Mt. View; W. E. Blencoe, of Stanberry; W. E. Bodley, of Kansas City; C. B. Chenoworth, of Webb City; J. M. Clark, of Ulrich; V. Dale, of Linneus; W. E. Davis, of Brookfield; T. A. Doherty, of Gilman City; T. B. Edwards, of Otterville; L. H. Falk, of Sweet Springs; L. Galbraith, of Clark; W. E. Gibbs, of St. Louis; G. R. Goodson, of Hopkins; C. E. Graham and J. C. Haberly, of Kansas City; R. M. Hale, of Purden; H. L. Harrison, of Kansas City; E. M. Herring, of Keytesville; C. A. Herron, of Kansas City; Roy Hoagland, of Brookfield; G. N. Houser, of California; W. P. Hudson, of Columbia; O. Hufford, of Kansas City; J. C. Johnson, of Moberly; C. E. Kessler, of St. Louis; E. J. Knauss, of Kansas City; C. T. Knight, of St. Louis; J. E. Koester, of Glasgow; L. Lange, of Kansas City; C. E. Lee, of Nowata; C. E. Liggett, of Kansas City; C. Lindham, of Troy; W. F. Mangus, of Moberly; M. M. Marshall, of Clark; M. S. Morris, of Mexico; J. T. Neill, of Tina; T. P. Newman, of Dearborn; C. M. Owen, of Brunswick; W. E. Paustian, of Holstein, Iowa; T. E. Payne, of Kansas City; G. Pendleton, of Edgerton; B. W. Rawlings, of Kansas City; C. L. Riley, of Blythdale; E. T. Robbins, of Warsaw; G. B. Rush, of St. Louis; J. O. Sears, of Drexel; T. A. Shoemaker, of Centralia, Kan.; J. T. S'Renco, of

St. Louis; C. D. Stark, of Booneville; M. Stokes, of Craig; H. M. Stunz, S. E. Thomas, and M. B. Tompkins, all of Kansas City; L. T. White, of St. Louis; M. O. Williams, of Warrensburg; and O. G. Wilson, of Centralia.

As assistants—A. W. Blankenbaker and C. F. Ehredt, both of St. Louis; R. L. Fairbrother, of Grange; J. P. Gorsuch, of St. Joseph; T. H. Mitchell, of Brighton; M. B. Tuck, of Morrisville; and G. L. Ziesenis, of Rolla.

Rhode Island Board.

There was but one applicant for registration at the meeting of the Rhode Island Board of Pharmacy held at Providence, January 3d, G. W. Goodrum, of Pawtuxet, who was licensed as an assistant.

The next meeting of the board will be held at Providence, February 7th.

Vermont Board.

The sixteenth annual meeting of the Vermont Board of Pharmacy was held January 3d, at Montpelier. The board adopted the National Pharmaceutical Syllabus as a guide and a standard at its examinations. Eight candidates for registration were examined at this meeting.

The board re-organized for the year and elected officers as follows: President, W. L. Gokay, of Bennington; secretary, D. F. Davis, of Barre; and treasurer, E. G. McClallan, of Rutland. The other members are W. F. Root, of Brattleboro; and M. G. Beebe, of Burlington. Mr. McClallan and Mr. Beebe are the two new members appointed to succeed respectively, J. G. Bellrose, whose term expired December 1st, and W. R. Warner who resigned to accept an appointment to the public service commission.

Virginia Board.

Forty applicants for registration were examined at a meeting of the Virginia Board of Pharmacy held at Richmond, January 3d. Of the number the following nineteen were successful:

As pharmacists—D. Atkinson, of Danville; J. E. Carper, of East Radford; R. L. Clanton, of Altavista; R. L. Frances, of Norfolk; V. A. Keister, of Pulaski; P. S. Lewis, of Richmond; W. S. Lindsay, of Petersburg; J. M. Long, of Lynchburg; W. E. Marshall, of Fredericksburg; S. P. Reams, of Richmond; S. D. Rowland, of Appalachia; and R. B. Sheior, of Richmond.

As assistants—F. T. Butler, of Norfolk; J. D. Coleman, of Appomattox; C. P. Jones, of Union Level; F. D. Jones, of Blackstone; E. C. Thornton, of Warrenton; J. B. Williams, of Richmond; and W. B. Wilson, of Warrenton.

The next meeting of the board will be held April 25th, at Richmond.

At a meeting of the board of trustees of the West Side Savings Bank of this city, held January 10th, Clarence O. Bigelow, theretofore a vice-president of the institution, was elected president to succeed the late Stephen G. Cook. Mr. Bigelow has served the bank for upward of twenty years in the capacity of a trustee and has been chairman of the executive committee of the board of trustees. Mr. Bigelow is best known to pharmacists through his membership on the New York Board of Pharmacy of which he is at the present time the vice-president.

Samuel W. Fairchild, senior member of the firm of Fairchild Brothers & Foster, of this city, has been elected president of the Union League Club of New York. Mr. Fairchild is a prominent figure in local civic and social life, being associated with several financial institutions and a number of philanthropic organizations; is a member of many clubs, and is connected with various municipal institutions.

The firm of Eble & Haines, of Hazleton, Pa., was dissolved December 19th by the retirement of Charles Haines whose interest was purchased by F. X. Eble his partner. Mr. Haines' retirement was caused by his failing health; and he will seek a more salubrious climate in the hope of being benefitted. Mr. Eble plans to make many improvements in the store.

The annual reception and dance of Gamma chapter, Phi Delta Chi Fraternity will be held on Wednesday evening, February 8th, at Duryea's Reception Hall, Suite A, 200 West Seventy-second street, corner Broadway, this city.

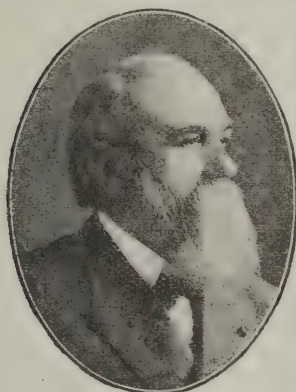
J. B. Hazen and W. H. Sanderson, of the publicity staff of Frederick Stearns & Co., of Detroit, Mich., have resigned. Mr. Hazen has come to this city.

Obituaries.

J. WINCHELL FORBES.

Prof. J. Winchell Forbes, of Rossmoyne, Ohio, is dead. In body he had been weak and frail for many years, but in mind, up to the time of his last illness, as alert and active as a boy in his teens. Up to a couple of years or so ago Prof. Forbes was editor of *Drugs and Sundries*, a bright little house organ published by the Stein-Gray Drug Company, of Cincinnati. When this publication went out of existence, its former editor found an outlet for his many bright and original observations in a department of the *Midland Druggist* known as "On the Firing Line."

The deceased was one of the pioneers in California pharmacy, having been a charter member of the first pharmaceutical association of that State, organized in 1869, and its secretary in 1873-4; he was a member (and the secretary) of the first San Francisco Board of Pharmacy, elected by



A. H. HOLLISTER.



J. WINCHELL FORBES.

the members of the State association residing in that city. This was in 1872. He assisted in the organization of the California College of Pharmacy and was professor of pharmacy in that institution in the early seventies. During his later years he was active in the pharmaceutical association affairs of Ohio, and also took a great deal of interest in the American Pharmaceutical Association.

Prof. Forbes was a facile and voluminous writer, and did not confine his efforts to pharmaceutical subjects; he was also a composer, and wrote special marches and overtures for rendition at the meetings of the Ohio and the American associations. He was a man of cheerful and optimistic disposition, and like many other optimists, was an enthusiastic disciple of Isaac Walton. In a letter to a friend written a few years ago he described himself in characteristic fashion as being "president of the ancient and honorable association of bald-headed fisherman, with a membership of three rod-wielders, active, and all the rest of the anglers in the universe, honorary."

Although his life's work had been accomplished, he will be missed and mourned by a wide circle of pharmaceutical friends.

JOSEPH LEROY WEBBER.

Joseph LeRoy Webber, of Brooklyn, as was briefly told in the *CIRCULAR* last month, is dead at the age of fifty-seven years. The deceased was born at Springfield, Mass., October 10th, 1853. He leaves one brother, Arthur Webber, a retail druggist of Springfield. His father was also a druggist of that city.

The deceased was best known to the world of pharmacy through his work on pepsin. He was a pharmaceutical chemist of much more than ordinary ability, and had held positions as such in several large houses. Mr. Webber took first honors in the "Centennial Class,"—the class of '76—in which were 104 graduates, at the Philadelphia College of Pharmacy. In this class were such men as the late Prof. C. S. N. Hallberg, Louis Emanuel, J. O. Burge, Charles W. Tobey, Emil L. Bourner, and Dr. F. E. Stewart.

ALBRECHT WORTMANN.

Albrecht Wortmann, of this city, one of the older members of the New York German Apothecaries' Society, died December 29th, at the age of fifty-nine years. He was born

in Greifrath, Germany, and came to this country in his nineteenth year. Soon thereafter he enlisted in the navy and served as an apothecary there until 1880 when he resigned and started a store in this city. He withdrew from business some eight years ago.

Mr. Wortmann was the first manager of the Consumers' Drug Company, a buying club organized by a number of leading German druggists of this city, the headquarters of which were at his store at Avenue A and East Eleventh street. This club was afterward incorporated as the New York Consolidated Drug Company.

A. H. HOLLISTER.

A. H. Hollister, of Madison, Wis., died recently at the age of sixty-seven years. Mr. Hollister was prominent in public affairs, and in lodge matters, as well as in pharmacy. He was first vice-president of the old National Retail Druggists' Association in 1885-6, and president the following year, when that association became the commercial section of the American Pharmaceutical Association, of which he was the first chairman (for two terms). He had also been president of the Wisconsin Pharmaceutical Association, as well as a member of the board of pharmacy of that State.

Mr. Hollister was a successful business man and left a legacy to the department of pharmacy of the University of Wisconsin.

The following are the recently reported deaths of other persons in the pharmacal world:

JAMES ABBEY, aged eighty-two years, of Dayton, Ohio, December 24th.

ALBERT J. AHERN, of Marlboro, Mass., aged twenty-nine years.

WILLIAM F. ALLEN, of Canajoharie, N. Y., January 12th, aged forty years.

HENRY CLAY ARNOLD, aged sixty-two years, of Kansas City, Mo.

J. L. ASKEW, of West Point, Ga., recently.

C. F. W. BADE, December 6th, at St. Louis, Mo., aged fifty-two years.

GEORGE BAGG, of Springfield, Mass., aged seventy-nine years, January 1st.

CHARLES E. BALL, January 2d, at Holyoke, Mass., aged fifty-nine years.

EDWARD BINSCHADLER, at St. Louis, Mo., December 6th, aged sixty-eight years.

F. M. BLANEY, of Baltimore, Md., January 19th, aged sixty-one years.

D. M. BOWERS, of Sidney, N. Y., December 21st.

JACOB S. BOWMAN, at Pine Plains, N. Y., January 7th, aged sixty-eight years.

CAPTAIN S. L. BRICE, December 26th, at Wheeling, W. Va.

J. H. BRIGGS, aged sixty-five years, of Guthrie, Okla.

F. M. CABLE, formerly of Brainerd, Minn., in this city, December 2d.

HARRY F. CAMPBELL, of Traverse City, Mich., December 5th, aged sixty years.

PHILIP L. COULTER, at McDonald, Pa., January 1st, aged forty-six years.

JOHN W. CONSIDINE, of New Bedford, Mass.

W. H. CRAIG, of Knoxville, Tenn., December 25th.

FOSWELL C. CUTTS, January 4th, aged sixty-eight years, of Brooklyn, N. Y.

JACOB W. DIEHL, December 11th, at Buffalo, N. Y., aged seventy-three years.

B. G. DONZEL, of North Pelham, N. Y.

EDWARD DOSH, of Clinton, Iowa, aged fifty-four years.

WILFRED B. DUBOIS, November 28th, of New Paltz, N. Y.

ALBERT S. ELWELL, aged fifty-seven years, of Bridgeton, N. J., January 3d.

HENRY FLUEGEL, of Brooklyn, N. Y., aged forty-one years.

PETER D. GILCHRIST, of Boston, Mass., aged thirty-four years.

E. E. GREEN, at McIntosh, Fla., aged sixty years.

F. J. GREENE, of Chicago, Ill., December 30th, aged fifty-six years.

GOTTLIEB O. GREINER, of Paris, Texas, aged eighty-three years.

WILLIAM B. GUY, of Middletown, Conn., January 3d, aged sixty-two years.

FRANK M. HALL, of Denver, Colo., December 11th, aged forty-seven years.

Dr. G. S. HANCOCK, aged sixty years, of Campbellsburg, Ind.

JAMES A. HEALY, of Washington, D. C., December 25th, aged sixty-eight years.

A. H. HOLLISTER, of Madison, Wis., December 5th, aged sixty-seven years.

RICHARD HORTON, of Rahway, N. J., January 7th.

SAMUEL A. HUFFMAN, of St. Louis, Mo.

LOUIS JOST, December 21st, at St. Louis, Mo.

FRANK E. KINSMAN, aged seventy-one years, of Augusta, Me.

JOHN C. KLINE, of Ashley, Pa., at Shenandoah, Pa., aged forty-eight years.

ELISHA LEAVENWORTH, of Waterbury, Conn., January 6th, aged ninety-seven years.

Dr. CHARLES J. LINCOLN, of Little Rock, Ark., December 25th, aged seventy-eight years.

SAMUEL L. LORD, January 2d, at Boston, Mass., aged sixty-nine years.

THOMAS LYTLE, of Dayton, Ohio, December 26th, aged seventy-four years.

JOHN MACLEAN, of St. Mary's, Ont., aged seventy-nine years.

R. S. McCURDY, at Kansas City, Mo., aged forty-seven years.

W. H. MACY, of Towanda, Ill., aged seventy-six years.

JOHN MERRILL, of Meridian, Miss., December 6th.

GUSTAVUS J. NEUBERT, aged seventy-seven years, of Kansas City, Mo.

JOHN W. NIECE, of Henry, Ill., aged seventy-five years.

EDWARD D. PEASE, aged fifty-five years, December 13th, at North Bloomfield, Conn.

CHARLES H. PETTET, aged seventy-four years, of Louisville, Ky., January 3d.

ERNEST PHILLIPS, of Frankton, Ind.

HERBERT E. POTTLE, of Andover, Mass., January 3d, aged thirty-five years.

E. E. QUANDT, aged forty-five years, of Baltimore, Md., January 17th.

GRANT RIDENOUR, of Brooklyn, N. Y., aged forty years.

ALEXANDER M. ROBINSON, December 22d, at Bangor, Me., aged sixty-six years.

CHARLES W. RYNARD, of Philadelphia, Pa., January 1st.

THOMAS K. SCHELLER, aged seventy-two years, of Chambersburg, Pa.

CARL W. SEIBERT, aged thirty-five years, of Pittsburg, Pa.

GEORGE R. STEELE, of Thompsonville, Conn., aged fifty years.

HARRY INGALLS SULLIVAN, aged forty-one years, at Nashville, Tenn., December 12th.

H. C. THOMAS, of Dodson, La., at New Orleans.

BYRON E. WEBSTER, at Benton, Ill., aged seventy-three years.

NELSON WEED, of Mankato, Minn., aged sixty-one years, November 19th.

C. A. WEISBROD, aged thirty-nine years, at Oshkosh, Wis.

W. WALLACE WHITE, of Brooklyn, N. Y.

THOMAS WHITE, aged sixty years, of Jersey City, N. J., January 9th.

O. M. WIGHT, December 21st, of Kansas City, Mo., aged fifty-three years.

Henry Wells, president of the Wells & Richardson Company, of Burlington, Vt., died January 7th at his winter home at Miami, Fla., aged sixty-two years. He had been in poor health for a long time and had of late years been away from Burlington much of the time. He was an incorporator of the Burlington Savings Bank and a trustee of that institution. He leaves a widow, one sister and two brothers.

Walter B. Duffy, of Rochester, N. Y., died January 14th, aged seventy years. He was president of the New York and Kentucky Company, a large distilling concern which was interested in a so-called malt whisky bearing his name, and was largely interested in various other industrial concerns.

Mrs. Annie Caswell, wife of John R. Caswell, died of paralysis at her home in Newport, R. I., January 9th.

Two "mail order" "medical institutions" were raided by the postal authorities in this city a few days ago. One did business principally with ignorant foreigners and is said to have had an income of \$3,000 a week. The other was a smaller concern whose receipts were about half that figure. Each was under the supervision of a physician, although the business manager of the larger one was a man who, the police said, had an unsavory race-track record.

To represent the American Pharmaceutical Association at a meeting of the National Civic Federation held at the Hotel Astor, this city, January 12th to 14th, President Eberle appointed a committee consisting of Prof. Charles F. Chandler, Prof. H. H. Rusby, Thomas F. Main, Thomas P. Cook, Dr. William Jay Schieffelin, and Francis B. Hays.

W. H. Ebbitt, city salesman for Schieffelin & Co., and one of the old-time "wheel horses" of the Alumni Association of the College of Pharmacy of the City of New York, Columbia University, has been confined to his home by a prolonged illness. His many friends in the trade will be pleased to learn that he is convalescing.

Wilhelm Bodemann, of Chicago, has begun action in the circuit court at that city, to recover \$25,000 paid in premiums to the United States Life Insurance Company. He charges that the company has failed to carry out the agreement entered into at the time he took out four policies in 1899 and 1900.

The Colorado Board of Immigration, of Denver, is looking for some druggists who wish to locate in that State. Information will be furnished free to those interested.

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Pharmacists as Professional Men.

Before a man may become a pharmacist in this country, and especially in this State, he has to show himself possessed of certain educational qualifications. This was not always so. A generation ago anybody could call himself a druggist and legally make a pretense at filling physicians' prescriptions; and the selling of all kinds of poisons was an every-day event in cross-roads stores throughout the length and breadth of the land. Gradually laws were enacted to put a stop to this condition of affairs, and these laws have been growing in number and putting more and more restrictions around the practice of pharmacy until now either a candidate for license to engage in that practice must be very well qualified for it or the State in which he is examined must be very far behind the times, if he succeeds in getting the desired permit. All over the country the bars around the calling are being raised higher and higher, to the end that the ignorant and incompetent shall be kept out. Every once in a while we hear that another board has elevated its educational prerequisite standard until now it is impossible except in a few of the less progressive States for a candidate even to get a hearing before the examiners unless he has received a good grammar-school education, and in many of the States, considerably more. The public require this of pharmacy for the public's protection, and not for the purpose of protecting those already in pharmacy from the competition of outsiders who would enter.

In exacting so much of pharmacy the public puts itself under some obligation to accord greater official recognition to those who practice it. Pharmacists must be educated men in the first place, says the public, and must be well schooled in the science and art of their calling as well. Then is it anything more than reasonable and just for pharmacists to ask the public for recognition of its claims to the right to representation alongside of physicians on boards of health, in the proposed national bureau of health, and in the higher official ranks of the national guard and the army and navy? We think it is not. Furthermore, we think that as soon as the public becomes aware of the strides that pharmacists are taking in educational matters, and the growth they are making in professional spirit, it will accord to them the recognition due those in their position. Such things take time, however, and we shall have to wait—but should not wait in idleness. On the contrary, we should adopt for our motto the revised version of an old saying, "All things come to him who waits—if he hus-

ties while he waits." Work of the kind we now have in mind is best accomplished through associations. "United we stand, divided we fall." The national and State associations have done much to raise pharmacy's status; they will do much more. Those who want the work to go on should work for, through and in their associations. Druggists should not expect the public to place a higher estimate upon them than they place upon themselves. They can do much to educate the public in matters relating to pharmacy, and an educated public is the strongest ally the profession of pharmacy can have. Yes, pharmacy is a profession, and when pharmacists generally have become professional men through their own efforts and public requirements, they will receive professional recognition and professional honors and emoluments at the hands of the public's servants, the law-makers. Let us all try to hasten that day.

On Reading Books and Journals.

All of us know the old druggist whose library consists of a twenty-year-old and much dog-eared and begrimed dispensatory, a few price-lists, and several odd copies of house organs with here and there a sample copy of a pharmaceutical journal. Yes, we all know him, and some of us laugh and some grieve—according to temperament, or how we happen to be feeling at the time—as we contemplate the picture he makes. Usually poverty is the excuse he offers for the absence of the latest revision of the Pharmacopœia, the current edition of the National Formulary, the newest dispensatory, and the other standard reference books on subjects germane to his calling, and a few journals, and it is heartless to taunt a man for his shortcomings due to lack of money. But is it economy to try to get along without the books and papers? We think not. And is not the poor man the very one who needs them most? We think so. One of our reasons for so thinking is very tersely expressed in a paper read at a meeting of the California Pharmaceutical Association by H. D. Morgan.

This author supposes a case, which one is led to suspect is a true one of which the writer had personal cognizance. He supposes that the druggist receives a prescription for a certain National Formulary elixir and goes to the shelf where Jack Spratt & Co.'s elixirs are kept, and finds the bottle which had contained the one he wants is empty. He continues the story thus:

Then you look among your other elixirs and none there. You begin to feel queer, for the prescription is from Dr.

Grouch, who knocks you and says just because you have the only store in town you feel you can carry just what you like.

Now you begin to wonder and fret; you look for the elixir of terpin hydrate, with the thought of adding codeine sulphate. There's no bottle at all, showing you've not carried it in stock. You suddenly start; there's the dispensatory, a happy thought sure.

You read: "Elixir terpin hydrate and codeine is said to contain terpin hydrate, 1 grain; codeine, $\frac{1}{8}$ grain, to each fluid dram."

Fine—yes—no—but what on earth is the solvent? Aromatic elixir, you suppose, and away you go, only to find that you can't get it into solution. You heat it, and after a while it's dissolved. Oh, happy day, that was easy! You pass it out yet warm, with the chesty air that "I am he who can do it." In a while the customer returns with the color somewhat gone from his tired face. In a hoarse whisper, which shows plainly that he is worried, he says: "I gave her one dose, and when I went to give her the second I noticed all those little needles floating about in it. You didn't make a mistake, did you? Will it harm her?"

Now, Mr. Man, what are you going to do? Sure, you may cuss and blame the clerk who let the last of Spratt & Co.'s elixir go without putting it on the want book. What will that do for you now? Even your dispensatory has gone back on you. . . . You begin to sweat and fret. In the meanwhile your customer waits.

You look at Spratt & Co.'s label to see what per cent. alcohol they use. Forty per cent., says the label. Well, that helps you. Away you go—you try all kinds of mixtures, alcohol and water, from one-third to four-fifths alcohol, but as soon as it is cold the crystals float about poking their thumbs to their noses at you. Then you try glycerin and alcohol, and glycerin, alcohol and water. If you're alone or rushed you are wasting time and money. All at once you get mad because the dispensatory says the National Formulary has the formula, and you haven't any National Formulary. You stand off the customer while in haste you send for the elixir made by Spratt & Co., and with the same mail goes an order for a National Formulary.

Is not that easily recognizable as a true description—except the last line—of a scene which is enacted almost every day in the store of the over-economical man? Such a man saves a dollar or two by not ordering a book, and perhaps every week wastes time worth more than twice as much as that on account of not having the book, to say nothing of the profit he pays "Jack Spratt & Co." for making preparations which he could easily make himself if he only had the formulas, and the loss he sustains by missing sales and driving customers to other stores. Many a time a single note in a single issue of a good pharmaceutical journal pays for that journal for a term of years. "Pays for itself every month," wrote a druggist concerning a little book he bought of us, and we could fill pages of the CIRCULAR with similar testimonials.

There is but one way for the druggist to keep abreast of the times, and that is by providing himself with the later editions of the standard books, and by reading the journals that will keep him posted on the progress that is made in his calling between the times the books are issued. And the doctor soon learns the difference between the druggist who reads and knows and can aid him in his search for the latest word concerning some drug or preparation, and the one who grins shamefacedly or groans resignedly when asked about some new drug or old formula.

Some Results of the Food and Drugs Act.

Notices of judgments rendered by the United States courts in actions brought under the food and drugs act make very refreshing reading. There is a judicial calmness and reserve about them that is really delightful. One turns with a feeling of great relief from the newspapers, with their large type and red ink, indicative of a screaming hysteria, to the brief and straightforward statement of facts recorded in these notices. There is no innuendo, no mud-slinging, no attempt to prejudice the reader either for or against either party to the suit in which the judgment was rendered. When plainly stated facts are sufficient, yelling, red ink, billingsgate and abuse are superfluous.

Over seven hundred of these notices of judgment have been issued by the secretary of agriculture. We have just been looking over a few of the late ones, recently to hand. In one we read how a sample of alleged pure flavoring extract of vanilla was adjudged to be misbranded because "in truth and in fact it was a dilute extract, artificially colored in a manner whereby its inferiority was concealed." The manufacturer entered a plea of guilty and was fined twenty-five dollars. No muck-raking there; no attempt at blackmail or defamation of character. The manufacturer was simply following a "trade custom" of lying about his goods for the benefit of his pocket and to the detriment of the retailer and consumer, was caught at it, convicted, and sentenced to pay a fine. That's all.

In another case the judgment was against a so-called importer and packer of olive oil, who shipped quantities of oil as and for "extra superfine olive oil" when "in truth and in fact it was a mixture of olive oil and cottonseed oil." At the hearing no one appeared to claim the goods, so the court ordered them to be sold. No blare of trumpets there, no fanfare, no shouting from the house top. The dealer knew he had lied to his consumers, he knew that he had been caught, and he knew that he had no excuse to offer other than the old played-out one sanctioned in some quarters by "trade custom," but of no avail in a court of justice, that he needed the money, so he stayed away from the court.

In a third case "pure spirits of turpentine" was found by the government chemists to contain a "large quantity of mineral oil," and was confiscated. Evidently the public has tired of paying turpentine prices for mineral oil, and is rebelling. There is not even the excuse of "trade custom" to put forward for this adulteration, and when that cannot be offered for a practice, it must indeed be a bare-faced fraud.

And here is a "hair grower" put up in small fancy bottles and sold at large fancy prices, because, according to a "trade custom," it bears the lying legend that it "will produce hair on bald heads . . . stops falling hair, keeps the scalp healthy . . . pure and harmless." Upon analysis it was found to consist of a little alcohol, borax, glycerin, and a trace of capsicum, in water. The label was held to be "false and misleading, in that the product would not produce hair on bald heads, and would not stop falling

of the hair." A fifty-dollar fine was imposed. Still, there are people who will go ahead paying several dollars a pint for such mixtures, their faith and hope being as great and as misplaced as are those of the man who, as Knox would say, sows grass seed on an asphalt pavement and expects a lawn. Perhaps a few cold facts from law courts will cool the ardor of these misled ones, and the honest druggist is the man to bring the facts and the consumer together, no matter what the "trade custom" may be.

Great is the work of the administrators of the food and drugs act, although not great enough, of course, to make dishonest people honest; still it is sufficiently powerful to discourage certain kinds of dishonesty by making them unprofitable, and this is a long step in the right direction. When dishonesty becomes unprofitable, young men taken into a business will not be taught from their early youth that it is justified by "trade custom," and so will not receive their commercial education in a school which teaches swindling. That is an end well worth working for, to say nothing of the advantage which comes to honest dealers at the present time through the elimination of dishonest competition. And all this is in addition to the saving to the public. More power to the elbows of the men behind the food and drugs laws.

Merchandizing a Business, Not a Profession.

Whether the practice of pharmacy is a profession or not—and we hold that it is—there is no gainsaying the fact that the selling of hot-water bottles, brushes, soaps, perfumery, books, stationery, lamp goods, candy, soda water, crackers, garden seeds, toys, fireworks, cigars and tobacco, paints, and several other lines of goods, is a business, and the man to succeed at it must exercise business acumen and practice business prudence. Just how he may do these things he can not learn at college, or from reading books and journals, or by attending association meetings and listening to his successful brothers relate their experiences, but if he has the germ of success within him, all these things help to develop it.

Considering the three so-called learned professions, we may say that physicians are proverbially poor financiers, that lawyers are generally able to look out for their own interests, and that the very nature of their work usually precludes clergymen from being reckoned as business men at all. Just where pharmacists as members of a learned profession would rank in a business sense if considered in connection with the three kinds of men mentioned, it is impossible to say, inasmuch as professional pharmacists who are not merchants are so rare as to furnish no basis of comparison, but we hazard the guess that a composite picture of the other three would be a fairly good likeness of the pharmacist.

On the other hand, considering the druggist as a merchant, it would hardly be fair to compare him with strictly mercantile men like the grocer, the hardware dealer, the clothier, the dry goods man, the proprietor of a shoe store, or the haberdasher. Still, the business of merchandizing in such goods as are usually

found on the drug store shelves, except those that are for sale to the sick and afflicted, is a business, and unless conducted in a manner that is found to be advantageous by merchants generally, is almost sure to fail, and leave its proprietor dependent upon his professional practice for a livelihood. This would not be a bad thing for him if there were money enough in this practice to afford him and others similarly situated a good living, with a margin of earnings to lay away for the expected rainy day, but such is not the case in many instances, and even in those instances in which it is the case, the professional pharmacist, like the physician, must still be a good business man in order to achieve the best financial results from the practice of his profession.

All of which is but prefatory to what we have in mind to say, namely, that in this day of chains of drug stores, department-store competition, dispensing by physicians, and the application of sound and progressive commercial methods by individual proprietors to individual drug stores, it more than ever behooves the ordinary pharmacist to make a close study of the business side of his establishment and spare no effort to advance it by the application of the best business methods he can devise. For a writer who has not had long and varied experience in the store to sit at his desk and suggest to a man actually behind the counter what he should do, without becoming platitudinous to the point of ridiculousness, is quite an achievement, and not all who attempt it succeed; but, on the other hand, the druggist who thinks that just because he is so close to it he knows more about his business than it is possible for any outsider to tell him, should remember that the best way to see the beauty of an oil painting is not to stand close to it with a magnifying glass, but to step back a few paces and get a good perspective view; and likewise that a merchant may be so close to his daily routine and to his daily customers as to fail to see opportunities in his position which are plainly visible to a trained eye far enough away to view the situation with reference not only to what is in the store itself, but in its surroundings. And he should never lose sight of the fact that sometimes that trained eye happens to belong to a man who is not a mere arm-chair theorist, but is a good drug merchant looking for an opening for a new store.

There are a thousand and one rules which merchants should keep constantly in mind, ranging all the way from those referring to courtesy in waiting on children, up through others relating to proper buying and attractive advertising, to still others applicable to inventories, insurance and banking. It is not our purpose to attempt to codify these rules or to add to them, but we do most earnestly want to direct the attention of our readers to the value of good business methods, to the necessity for those who are in a rut and are falling back in their receipts to make a change, and to urge all to read the business articles in the journals, including the advertisements. We want them to resolve not to whine if the other fellow gets some of their trade, but to redouble their efforts to win it back and get more; and this not by the fool-hardy practice of cutting prices, but by giving the

people what they want in quality, assortment, courtesy, promptness, inviting surroundings, and by dozens of other ways. We do not offer this little preachment as the only correct guide to a way for their betterment, but we do hope that it will be the means of stirring up some of the dejected, the imperiled, the sluggish, the encysted, and those generally who ought to be making more money than they are, to the end that they may discover the way to their own deliverance from the condition in which they find themselves.

PREREQUISITE LAWS, like other laws, must have a good large proportion of the people behind them if they are to be successfully administered; but prerequisite laws need only the druggist part of the public behind them to make them successful. When the first test vote on the prerequisite clause—to require candidates for board licensure to be college graduates—was taken in the New York State Pharmaceutical Association, and the clause was defeated by the close vote of fifty-four to fifty, Prof. Rusby, who had led the campaign for its adoption, remarked that he would rather have a small majority against the clause than a small majority for it. In other words, he did not want to force the clause on a large and unwilling minority, but preferred to wait a while until all, or nearly all, the members of the association were ready to ask for the change in the law. He did not have to wait long, for the following year the association adopted the prerequisite clause without opposition. This is brought to mind just now by a report to the effect that while the pharmaceutical association of a western State had voted down a resolution declaring that the association wanted the prerequisite clause, the executive committee of the association has reversed this action, in so far as a committee is able to reverse the action of its creator, and decided to ask the legislature of that State for an amendment to the pharmacy law embodying the provision in question. Maybe the way to win the druggists to this innovation is to force upon them unwilling a demonstration of its beauties, but we believe we prefer the Rusby plan to show the rank and file of the craft the advantages of such a law first and then let them ask for, receive and gracefully accept it.

DECEPTIVE ADVERTISING is a bad thing, and we are not now referring to the statements made by advertisers for the purpose of deceiving. Many of these statements are manifestly so written as to carry no weight so far as the sophisticated are concerned. The kind of advertising we have in mind is that which contains advice as to health or beauty, and is printed in the newspapers as the views of the editor or of some contributor, or as clipped from another paper, presumably because the advice was too good not to receive further publicity, when all the time the advertisement is paid for, and contains a recommendation that a certain article be bought and used, just as if it were borax or salt or flour, and not a fake preparation made by the advertiser and sold at a fancy price. At the 1908 meeting of the American Pharmaceutical Association Dr. Lyman F. Kebler read a paper on "Prescription Nostums" in which he quoted at length from many old volumes of THE DRUGGISTS CIRCULAR to show that this form of advertising was in existence as far back

as 1859, when its deceptive nature was exposed by the CIRCULAR in an article on "extract of blodgett." Dr. Kebler stated that since the passage of the food and drugs act in 1906, just two years previously, there had been launched about forty "prescription nostrums." In the discussion following the reading of Dr. Kebler's paper, E. H. Ladish spoke of having heard of a law in Massachusetts which required that newspapers publishing advertisements which might mislead their readers into supposing that they were ordinary reading matter, should print over them the notice, "This is an advertisement," and he wanted the association to formulate a model law on this subject. Whereupon Leo Eliel said that he would like to see congress take action in the matter by excluding from the mails all newspapers carrying the kind of advertisements under discussion; adding that he had recommended something of this kind in his presidential address the year before. We believe it was in this discussion that Mr. Ladish said that when decidedly adverse criticism of this kind of advertising had been made a year or two previously many druggists had cried out, "Oh, you would take the bread and butter from our mouths," but now these same druggists were seeking relief from the burden of carrying in stock such a large and growing assortment of the advertised preparations. Now we are able to report in our news columns this month that a bill has been introduced in congress by Senator Owen, the object of which is to exclude from the United States mails any newspaper or magazine containing advertising masquerading as reading matter, and to provide for a heavy fine for the publisher of such magazines. For the sake of long-suffering druggists, and in the interest of honesty we hope that the bill will become a law.

YELLOW JOURNALISM has long been considered a menace to the country, and much has been said against it by those in a position to address many people. It has remained, however, for a business man of Chattanooga, Tenn., Edward A. Abbott, to take up the fight against this stench in the nostrils of decency as an individual enterprise, and institute a propaganda against it which he is promoting independent of any organized backing. In his correspondence this Tennessee knight uses paper along the margin of which is printed an extract from an article in the *Century Magazine* for last December, in which is quoted the characterization of the yellow press by the mayor of this city as a direct and insidious incitement to disorder. The argument of Mr. Abbott is based on business principles. He believes, and has seen instances which convince him that he is right in this, that the reading of all the most horrible happenings of the day saddens the lives and lessens the efficacy of workers of all classes. He makes his appeal to the employers of help who are at the same time the supporters, through their advertising patronage, of the yellow press. He says: "I shall ask the trade journals of the whole country to furnish the publicity and help to convince the storekeepers and manufacturers that murder and suicide, larceny and divorce, disease and death are not good companions for their advertisements. Together we will show those who have things to sell, the wisdom of cultivating a clientele that is optimistic, joyous and clean-minded—not one that is fearful, saddened and vulgar." He has our best wishes for the success of his gigantic undertaking.

PROF. HALLBERG was so busy during his life-time working for pharmacy that he did less work for himself and family than most men of his ability generally do. In consequence of this, and his unexpected death at a comparatively early age, he left a widow and young son in a house mortgaged for about \$3,500. As his labor was given unselfishly and unstintedly for pharmacy, which has been made richer thereby, it is but just that pharmacy should now do for him that which he found little time to do for himself when alive, provide his family with a home of its own. The American Pharmaceutical Association has undertaken to do this, and proposes to raise by popular subscription enough money to clear the title to the house and lot now nominally owned by Mrs. Hallberg. It has appointed a committee, with members in all the large centers, to receive contributions to this memorial fund, and those who wish to contribute to it and are not waited upon by a member of this committee, may remit direct to the treasurer of the association, Dr. H. M. Whelpley, 2342 Albion place, St. Louis. That the upward of two thousand members who compose the association will drop in the dollar or two each that is needed to complete the fund, is not to be doubted, and they should remember that he gives twice who gives quickly.

DOPING CANDY WITH MORPHINE is pretty near the limit, and yet a confectioners' journal reprints a formula for cough lozenges calling for two drams of morphine in a fourteen pound batch of candy, with a few other ingredients making the total weight of the finished product two or three ounces over fourteen pounds. The author of the formula did not recommend the addition of the narcotic ignorantly or thoughtlessly either, but did so with a full knowledge that "physicians may protest" "but business men cannot be hoodwinked." That the same confectioners' journal which called the drug journals to account for not breaking up the cocaine traffic should print such a formula is certainly most inconsistent, to say the least. Suppose the cough drops are sold at the rate of eighty cents a pound, a high price, then for a "nickel" a child may secure a package of the confection containing over half a grain of morphine—enough for four ordinary adult doses, or from fifteen to twenty-five doses for a child from five to ten years old. Here is work for the health authorities.

PHARMACEUTICAL ASSOCIATION MEETINGS will soon be in order. Winter is with us yet, it is true, the ground hereabouts being covered with snow as these lines are penned, but spring is coming on with a rush. St. Valentine's day, when the birds are said to make their plans for summer housekeeping, will have passed before this issue of the CIRCULAR reaches its readers; Easter, when the spring fishing season used to open for small boys with pin hooks, is nearly in sight; and almost before some of us can turn around three times and then find out which way we are facing, college commencements will be in full swing, with State and Territory association meetings looming up in the not far distant background. And it is gratifying to be able to chronicle the fact that these meetings are growing in number—Arizona having organized an association last year—growing in interest, growing in membership, and growing in value. Druggists who join these associations and attend their meetings thereby not only aid pharmacy through the greater influence they can bring to bear upon leg-

islation and in other ways, but they make better men and better pharmacists of themselves by helping, and receiving help from, their fellows, and by getting out of their stores for a change of scene, air, and general surroundings. We look for the meetings of the State associations this year to make a new high-water mark for attendance, and to set a swifter average pace for work than has yet been attained. So mote it be.

WORK FOR THE RIGHT occupies a large part of the time of many people. Work for what seems to be for their own temporal advantage is likewise done by a large number of people. The incentive of the latter class is so strong that those who are guided by it seem generally to do more, and harder, and more effectual work than is done by the other class; and but for one very important fact the ranks of the idealists would doubtless grow thinner through the disaffection of the disappointed. That fact is this: they seldom have to accomplish the same reform twice—when a question is once settled right it stays settled. On the other hand, those who defend a wrong position, and for the time being win the fight, are sure to be attacked again and again with ultimate defeat sure.

ABUSE THE CHINAMAN as we may for his opium-smoking we must not forget that the greatest hindrance to the suppression of the opium evil in the Flowery Kingdom, so earnestly desired by the authorities there, is the white man's greed for the profit there is in it for him in supplying the drug to the Celestials.

ANOTHER TRADE CUSTOM received a severe blow the other day when a court decided that "all wool" meant all wool, and not part wool and part cotton. It seems a little hard on trade that "trade custom" should be urged as an excuse for ordinary lying.

PHARMACISTS ARE ENTITLED TO SUPPORT from their fellow pharmacists in matters affecting the public welfare only in cases in which they are entitled to call on the public for support.

THE AMERICAN PHARMACEUTICAL ASSOCIATION will hold its fifty-ninth annual meeting at Boston, during the week of August fourteenth.

The *Steward* is authority for the statement that in the Kharkoo region of Russia, the discovery has been made that crabs make an excellent substitute for quinine. The local practitioners pour whisky over live crabs until they are thoroughly intoxicated, and then roast and pulverize them, shells and all. The dose is a dram of the resultant powder, and it is said to cure chills and fever.

The man who has something to make you fat and something else to make you lean appears to be prosperous.—*New Idea*.

Why the "else"? Maybe it is the same thing. Only a short time ago we saw a statement to the effect that one of the principal ingredients of a much-advertised anti-fat was used in some countries for fattening hogs.

"Counting from the shoulders down," says a writer in a contemporary, "every drug clerk has the same value." Not much; unless they are measured with their hands above their heads. Even so, there have been clerks of our acquaintance who were greatly handicapped by a dirty shirt and a slouchy gait.

Making Tablet Triturates.

By JOSEPH LINHART.

Many pharmacists do not know how to make tablet triturates. In fact, during the sixteen years of my connection with the drug trade I have found very few who could make perfect tablets either triturate or compressed. Even tablets purchased from pharmaceutical houses of good reputation I have found very defective in composition, solubility, stability, uniformity, or from variation in strength. I have seen tablets made by supposedly reliable manufacturers which were so hard or so coated with insoluble material as to make them therapeutically worthless if not dangerous.

To be able to manufacture perfect tablets, triturate or compressed, is not only an art, but requires a knowledge of the physical and chemical action of the drugs used.

I shall not delve into the various processes necessary to prepare the many combinations now on the market, but still try to outline a short and accurate method for making the tablets most frequently dispensed at the average pharmacy, and will endeavor to point out mistakes which I have seen pharmacists commit.

Sugar of milk is the most generally used vehicle, although other vehicles, such as sugar, starch, extract of licorice, and sodium chloride are used when necessary, the latter mostly in the preparation of tablets of corrosive mercuric chloride. Although diluted alcohol will answer in most cases, different medicaments require different moistening agents. Care should be taken to choose a moistening agent in which one or more of the tablet ingredients are soluble, so as to promote adhesion. Water, alcohol, ether and chloroform are used at times, alone or mixed, the latter two requiring rapid manipulation. To make a perfect tablet triturate it is essential that only finely powdered drugs be used, so as to insure a smooth surface.

Many pharmacists use talc over the tablets while still in the mould to obtain a smooth surface, but this practice is to be condemned.

The ordinary sugar of milk is not powdered finely enough for the preparation of triturate tablets, and should be bolted through a very fine sieve to remove the coarser particles.

The amount of moistening agent used plays an important part in tablet manufacture, and varies greatly according to the ingredients. The more menstruum used the harder, denser, and heavier the tablet becomes, and vice versa. The proper amount can be gauged only by experience, but enough should be added to make the mass sufficiently cohesive, but not too plastic. I would advise experimenting with sugar of milk until the operator turns out a good appearing tablet, soluble when dry. The hardness can be judged by crushing the tablet under the thumb side ways on the tile. A tablet should crumble without much exertion, but should be sufficiently hard not to break or chip when dropped to the floor. When the operator can make good sugar of milk tablets he can then make many tablets of which sugar of milk is the main component. After the first step is learned the operator should ascertain accurately the weight of one moldful of dry tablets. This should be noted and preserved for future reference. This, of course, varies with the amount of menstruum used, which should also be ascertained and noted.

With this data and training at hand, the operator is now ready to make tablets in which sugar of milk is the main constituent, the weight and bulk of which is not materially affected by the added medicament. By just weighing out the necessary amount of medicament and adding sugar of milk to the required weight, and proper trituration and addition of menstruum, the mold can be filled and then the tablets may be expelled and allowed to dry. Care should always be exercised not to use a filling tool that will have a chemical effect upon the drugs.

A common mistake is making tablets too wet. This causes shrinkage and results in tablets which are not uniform. Therein also lies a serious danger when the active ingredient is soluble in the menstruum, which oozes out on the under side and, containing most of the active principle, is left behind on the tile, with the result that the tablet is deficient in strength.

Here is another important factor which must be taken into consideration: when the active constituent is of a higher gravity than milk sugar, as is the case with calomel and other mercurials, lead and bismuth compounds, etc., the loss in bulk must be made up by the addition of sugar of milk; and the quantity of sugar of milk must be lessened when the active ingredient is lighter. Failure to observe these points accounts for the shortage or left over mass which pharmacists who have made tablets surely must have noticed.

Certain combinations can be made into tablets only by compression, and separate granulation and subsequent mixing, for if mixed all together and moistened, chemical reaction occurs, and a tablet results different from the one intended. A good example of this class of combination is calomel and sodium bicarbonate.

Tablets should never be subjected to high temperature in drying, especially when the medicament is of a volatile nature, or soluble in the menstruum used. This is particularly true of tablets which are other than white, for the evaporation quickly taking place from the exposed side, the menstruum draws the color to that side, which, therefore, when dry, will be darker than the under side.

A good drying cabinet can be made with little expense out of an ordinary box without bottom, one side of which should be hinged to serve as a door. Cleats are nailed to the sides to serve as rests for frames. The frames are made from narrow strips to slide easily into the box and rest on the cleats. These are covered with ordinary cheese cloth so as to form a sieve. The box should have an air vent to allow escape of moisture at the top. Such a drying cabinet, used over a register or steam radiator, is most serviceable, and permits an even drying of the tablets. The tablets are distributed over the cheese cloth and so inserted into the cabinet. Wire sieves are not so good, as they are apt to rust and affect the tablets.

Narcissine, an Alkaloid from Daffodil Bulb.

Ewins has described (Proc. Chem. Soc. through *Journ. Soc. Chem. Ind.*) an alkaloid isolated from the bulb of the common daffodil (*narcissus pseudonarcissus*). This derivative which the author calls narcissine he showed to have the formula $C_{18}H_{17}O_4N$. It melts at from 266° to 267° C.; is levorotatory; is very stable; and contains no methoxy groups. The hydrochloride also was described.

Hoist with His Own Petard.

By THE STROLLER.

According to the story which is now unfolding itself, there was once a grocery clerk who tired of working twelve hours a day, six days in the week, Sundays and holidays "off." So he said to himself, I'll open a drug store and get rich quick without work or worry. It looked so easy to him that he wondered everybody hadn't thought of it already. This was before the pharmacy law was passed.

So the clerk opened a drug store, and as he had decided not to worry, he turned down a proposition that he buy a set of apothecaries' weights and measures, insisting that he could get along better with a system with which long use had made him familiar. He knew that four gills make a pint, and the talk of sixteen ounces making a pint confused him: sixteen ounces made a pound with him, and while he was well aware that "the old man" had sometimes trimmed the number down to fourteen, he was not prepared to go him two better, as he learned that druggists were in the habit of doing, and let it go at fourteen—no wonder druggists got rich quick!

Well, he opened his store, as has been stated before, and some business began to come his way. A fellow dropped in with a prescription calling for 1 ounce of a certain powder, 2 ounces of an extract, $1\frac{1}{2}$ ounces of something else, and so on. A drug clerk who was helping about the place told the new druggist that in prescription work an ounce meant a troy ounce (the word "apothecaries" was too long and confusing), and by reference to a table the new druggist found that 1 troy ounce was the equivalent of $1\frac{17}{175}$ grocery ounces. (The discriminating reader will note that he did not bother with decimal fractions, for he did not intend to worry a bit.) Just how he weighed $1\frac{17}{175}$ ounces may never be generally known, but he says he had it right and he probably knew if anybody did. That $1\frac{1}{2}$ ounces almost got him to worrying at first, as its equivalent was not set down in the table; but the equivalent for $\frac{1}{2}$ ounce was, and by adding this, $\frac{96}{175}$, to the equivalent for 1 ounce, $1\frac{17}{175}$, he obtained $1\frac{113}{175}$, grocery ounces, the required combination.

When it came to a matter of fluid ounces he used his gill cup, which he called four ounces, and so, by division and multiplication, and now and then by addition and subtraction as well, and even a tough wrestle with complex fractions on occasion, he calculated the quantities he wanted. All this he did to avoid worry, for life, at best, is short, and should be spent to the best advantage.

It might as well be stated here as anywhere else in this disquisition, and it must be stated somewhere, else the same will not be complete, that the ex-groceryman always stuck to his grocery weights and measures, and to his table of equivalents, and contended vigorously that the apothecaries' system was a most complicated affair, necessitating endless "converting" and figuring in all sorts of inconvenient fractions.

One day he and an old druggist were discussing things in general, when the former grocery clerk's method of weighing and measuring was mentioned. The old druggist attempted to point out the error of the new recruit's course, but the latter would not have it that way. One thing brought on another, and the old druggist soon waxed abusive. He called

the ex-groceryman all kinds of a long-eared equus asinus, and a dunder-head, and even applied to him a shorter and uglier word which well brought-up boys know that one should never apply to a brother—even a brother druggist.

Naturally matters were warming up, when along came another druggist, and luckily he was one who had the reputation of being strictly up-to-date and the smartest man in the business in that town; he could settle the dispute in short order, so they both turned to him.

The smart druggist listened to the statement of the case, and of course the old druggist felt perfectly sure in advance what the decision would be. But the smart druggist did not seem to be convinced.

"You say this man is a dolt and a chump and an idiot," he began. "Now, tell me again and dispassionately what you base your charges on?"

The old druggist explained once more, and with greater calmness and attention to detail, just why the other fellow ought to be unanimously voted a blockhead and a donkey. In short it was because when he filled a prescription written in the apothecaries' system of weights he did not use those weights, but insisted upon "converting" the quantities into the equivalents in the avoirdupois system, and using avoirdupois weights. This one fact, he insisted (and who shall say without a show of reason?), established the correctness of his contention that the other fellow was all that he had said he was, and perhaps a little more and worse.

Then the smart druggist began to show his hand. "Perhaps you are right," he said, "but before we condemn this man unconditionally let us inquire into some of your customs. When you receive a prescription calling for grammes, and cubic centimeters and such, do you employ gramme weights, cubic centimeter measures, and so on, or do you turn to your table of equivalents and do a little 'converting' on your own hook?"

The old druggist, evidently somewhat taken aback, stammered: "Oh—well—of course—that's different. —I—"

"How? Wherein is it different?" This in a cold, relentless tone of voice from the arbiter.

"I—you see—anyhow, I was brought up to use apothecaries' weights and measures and know all about 'em. All this new-fangled talk —." But he did not get any further. He did not know what more to say. Indeed, it seemed that there was nothing more he *could* say.

The smart druggist gave him a withering look and walked off in disgust. The only comment he deigned to make was—

"Who's loony now?"

Relation of Eye Adjustment to Epilepsy.

Stevens (*N. Y. Med. Journ.*) states that his later experience has led him to believe that iodopathic epilepsy is, in a great proportion of cases, the result of the condition of tilting of the meridians of the eyes which he has called declinations, and for some years past his efforts toward relief of these cases have been directed toward the correction of this defect. Although such a correction is sometimes extremely difficult and demands much patience and infinite care, the results have been on the whole most satisfactory.

Some Dispensing Notes.

At the January meeting of the Edinburgh Chemists' Association, J. D. Watson offered notes on the dispensing of two prescriptions as follows:

I.

Iron protochloride..... 2 grains.
Aloin ½ grain.
Make a pill.

Powdered tragacanth and syrup; mucilage of acacia; and anhydrous wool-fat were tried as excipients. Mr. Watson's conclusion was that if the pills are to be kept for any time, especially if not kept in a tightly closed bottle, wool-fat is the only satisfactory excipient.

II.

Balsam of peru..... 2 drams.
Syrup of tolu..... 4 drams.
Compound tincture of camphor.... 1½ drams.
Water..... enough to make 4 ounces.

The simplest and most satisfactory process was to add the balsam gradually to a freshly prepared mucilage made of 2 drams of acacia and 3 drams of water; then to add more water, and finally the syrup and the tincture.

At the same meeting George Elliot commented as follows on a number of prescriptions:

III.

Precipitated sulphur..... 1 dram.
Precipitated calamine..... 4 drams.
Zinc oxide..... 4 drams.
Glycerin 1 dram.
Water..... enough to make 4 ounces.
Make a lotion.

The powders should be well mixed together and then rubbed into a paste with the glycerin and a portion of the water. The rest of the water should be added in small portions, the sides of the mortar and the pestle being scraped after each addition. When the finished product is poured into the bottle any gritty particles should be left behind. In standing, the sulphur will sink. ["Lac sulphur" containing calcium sulphate is the sort used by the "beauty doctors" in their homogenous suspensions.—Editor THE DRUGGISTS CIRCULAR.]

IV.

Phenalgine 4 grains.
Exalgine 1 grain.
Acetyl-salicylic acid..... 8 grains.
Caffeine 2 grains.
Make a powder.

It was found that the only way to dispense these ingredients in other than a pasty mass, was to put up the phenalgine separately.

V.

Ferrous arsenate..... 1/12 grain.
Potassium carbonate..... 2½ grains.
Ferrous sulphate..... 2½ grains.
Make a pill; dispense 24.

In dispensing this, an equivalent quantity of dried ferrous sulphate (40 grains) was used. The potassium carbonate was dissolved in 20 grains of water; the ferrous sulphate triturated with this; the ferrous arsenate was added, and the mass set aside for ten minutes; four grains of powdered tragacanth was beaten into the mass which was then quite workable.

VI.

Silver nitrate..... 2 drams.
Aluminis [!]..... 4 drams.
Distilled water..... enough to make 8 ounces.

A tablespoonful to be diluted with half a tumblerful of water for a gargle.

Although the precipitated silver sulphate is soluble in the proportion of water represented by the diluted gargle the precipitate is so heavy that it can scarcely be diffused well enough to permit accurate division in pouring out portions of the prescribed liquid. To obviate this the salts were dissolved in enough water to make 16 ounces, and the directions changed accordingly.

VII.

Sodium bicarbonate..... 3 drams.
Bismuth salicylate..... 3 drams.
Spirit of chloroform..... 6½ drams.
Infusion of gentian..... enough to make 8 ounces.

To hasten the interaction between the salts 1 dram of sodium bicarbonate and the bismuth salicylate were heated together with water until the reaction was completed. After this had cooled the mixture was prepared as directed. Mr. Elliot cautioned against the use of bismuth carbonate to replace the salicylate, as is often done when the subnitrate is prescribed with an alkaline carbonate, because, if on another occasion the mixture was dispensed as written, the characteristic taste of sodium salicylate would have a disquieting effect upon the patient.

VIII.

Terebene 1 dram.
Compound tincture of camphor..... 3 drams.
Aromatic spirit of ammonia..... 4 drams.
Water..... enough to make 3 ounces.

Mr. Elliot had found that with 1 dram of tincture of quillaja the foregoing might be made into an emulsion satisfactorily. E. J. Brown was of the opinion that the use of tincture of quillaja in a medicament for internal use was objectionable because of the physiological effect of quillaja, and in this we agree with him.

Reform in Advertising.*

While pharmacy is a profession, economic conditions, to a large extent, have made a tradesman of the owner of a drug store. As such he is obliged to sell many things which, in view of his professional training, he knows the public would be better off without. In the same way, the drug journals advertise many things which the editor knows to be valueless or worse. Further, the editor must conduct his reading pages in such a way as not to give offense to his advertising patrons. Thus, while editors of drug journals like to talk about the ethics of pharmacy and are prone to indulge in glittering generalities as to the need of pharmaceutical advance, these editors have, as a rule, carefully refrained from noting the exposures of fraudulent medicines that have appeared in the columns of the *Journal*—exposures that supplied information which the pharmacist should have and must have if he is to be true to his profession; information that would enable him to protect the public, the physician and himself from the harm which ensues from

*Editorial article in the *Journal of the American Medical Association*.

the use of dishonest medicines. While thus, in general, drug journals have done little to spread the *Journal's* propaganda for reform, there have been two notable exceptions—THE DRUGGISTS CIRCULAR of New York and the *American Journal of Pharmacy* of Philadelphia. These journals have not only kept their reading pages up to date, but they have kept their advertising pages practically free from all objectionable matter. We believe that, through the work initiated by the *Journal*, assisted by such drug journals as those mentioned, the nostrum-makers have been put on the retreat, and that the business will continue to be a dwindling one. Other pharmaceutical journals will not lose in the long run, even from a purely commercial standpoint, by taking the position assumed by THE DRUGGISTS CIRCULAR and the *American Journal of Pharmacy*. In fact, we confidently expect them, one by one, to adopt the same policy. By so doing they will not only gain the respect of their own profession and of the medical profession, but—equally important—they will also be able to respect themselves.

Some Nostrums, Fakes and Deleterious Preparations.

At the 1910 meeting of the North Carolina Pharmaceutical Association Dr. L. F. Kebler, chief of the drug division of the bureau of chemistry, United States department of agriculture, was an invited guest and delivered a lecture on "Ethics in the Drug Business." After suitable introductory remarks, and some observations on business honesty, charlatany and the work of his bureau, Dr. Kebler paid his respects to some of the more notorious of the concerns which are engaged in what he was pleased to term "humbugging the people," as well as to some of the more disreputable preparations. Some quotations from his address follow:

RADOL.

The vicious type may be illustrated by a so-called cancer cure. It was extensively exploited in the papers under the name "radol." According to the claims, no case was so far advanced that it could not be successfully treated by this remedy. The scheme was promoted by a graduate in medicine, under an assumed name, and an advertising agency. It was advertised as radium-impregnated—radio-active—if you please. Examination, however, showed that the nostrum was no more radio-active than ordinary hydrant water. It consisted of two one-half gallon bottles of liquid. One was rendered fluorescent by means of quinine sulphate so as to deceive the unfortunate victim, and the other was little more than plain water. This wicked fraud was put out of business by a postal fraud order. . . .

HUMBUG OIL.

It is a trite saying that the American people like to be humbugged, and certain interests have worked it to a frazzle as is exemplified by the scene* before you representing "humbug oil." You will observe that Mr. Humbug is in the act of gathering the "humbugs" to be used in making the humbug oil. It is a humbug, indeed.

TURTLE OIL.

Another of a similar type is represented by the article known as "turtle oil." As can readily be seen from the composition given on the slide, it is a base imitation.

BEAVER OIL.

This product also calls to mind the article exploited under the name "beaver oil," which consists of a weak solution of capsicum in gasoline, the mixture being flavored with essential oils. It is exploited by regular street-faking methods. Live beavers constitute a part of the dem-

onstration for the purpose of deceiving the gullible purchaser.

CASTOR OVALS.

The medicinal properties of castor oil are well known to the public, but on account of its nauseating taste it is not well received. This fact is taken advantage of by the preparation formerly known as "castor ovals." It is represented as "the only castor oil confection." The product, however, does not contain anything derived either from the castor oil plant or sugar. The active principle is senna and the sweetening properties are imparted by the chemical known as saccharin.

RATTLESNAKE OIL LINIMENT.

Examination of this product revealed the fact that there was at most only a suggestion of rattlesnake oil present. The manufacturer ultimately confessed to this and asked whether he would not be permitted to call the production by the above name if it contained $\frac{1}{3}$ of an ounce of genuine rattlesnake oil to the gallon. . . .

VIBRO-DISCS.

Vibro-discs come in pairs of two distinct types. One pair consists of a circular portion of ordinary oil cloth partly covered on one side with a resin plaster, and on the other side of one of the pair is a small plate of zinc. The other disc of this same pair contains a copper plate instead of a zinc plate. Beneath the copper and zinc plates the oil cloth is perforated. Externally each entire disc is covered with a piece of gauze. The second type of discs is similar to that just described, except that the plates of zinc and copper and the gauze covering are omitted. Examination of the plaster covering one side of the discs shows that they are composed largely of some of the cheapest drugs employed in medicine, namely, burgundy pitch, resin, oil of tar, sugar, poke root, kaolin, capsicum and belladonna. The directions given for the use of the vibro discs are that the pair of discs containing the metallic plates must be warmed, separated from each other while warm, and applied before they become cool to the soles of the feet. The second pair of discs is to be separated in the same manner and applied to the chief regions of pain. Immediately after the application of the discs it is claimed that there is an electric vibration communicated to the blood, which causes a speedy removal of the rheumatic venom, the source of this electrical vibration being the two plates of copper and zinc, respectively, forming a part of the vibro-discs. The general principle employed of producing electricity by two different metals is based on scientific principles, but the conditions under which the discs are applied absolutely prevent the formation of any current of electricity. The electric current is also claimed to be imbued with the power of causing the uric acid to be attracted to the discs and to be absorbed thereby. There are a number of devices of this type on the market, among them being *electropodes* and *magic foot drafts*.

EYELIN.

This represents one of the most palpable frauds ever met with. It is exploited as a panacea for all abnormalities of the eye, such as cataract, short-sightedness, infirmities due to old age, etc. It consists of flavored vaseline. The price of a single box containing about $\frac{1}{4}$ of an ounce is \$1. The promoter of this remedy, a physician, made a net profit during the year just previous to its collection, of \$50,000.

GLYCOZONE.

This product is described as a mixture of glycerin and hydrogen peroxide, and is claimed to liberate ozone in the stomach. As a matter of fact, it is a mixture of glycerin and glyceric acid, and the most vivid imagination could not conjecture a condition in the stomach under which one iota of ozone would be liberated. . . .

Dr. Kebler had some pointed remarks to make concerning the all too well-known acetanilide headache remedies, the so-called cod liver oil preparations which contain no oil, the consumption and cancer "cures," the soothing syrup which soothes by dosing the patient with morphine, and then said a few words about a matter which has assumed alarming proportions of late. Further quotations are given:

Your attention is particularly called to the product known as "Espey's syrup for children's dentition" con-

*Dr. Kebler used a stereopticon to illustrate his lecture.

taining a declared amount of cocaine hydrochloride. It is hardly believable that anyone for the sake of a few dollars would concoct for infant use such a pernicious mixture.

MEDICATED SOFT DRINKS.

After babyhood the child is introduced to another line of products which contain greater or smaller quantities of habit-forming agents, namely, some of the so-called medicated soft drinks. A large number of them contain not only caffeine but also cocaine. A considerable number have already been prosecuted under the federal law for containing ingredients which render them deleterious to health. Several State legislatures are actively engaged in curtailing them. These products have been placed on the market largely during the past twenty years. On account of insufficient information they were formerly looked upon as comparatively harmless, but they are now known to be an impending evil. Centuries before cocaine was introduced as a remedial agent, wonderful accounts of the energy-creating properties of coca leaves were chronicled. Impetus was given to this belief by the enthusiastic reports of the virtues of this drug published not only in medical literature but in the secular press as well. Cocaine is one of the most insidious and dangerous habit-forming agents known. Kola nut was prominently brought forward about twenty-five years ago as an agent for the relief of fatigue, but in this respect it has been a disappointment. Whatever virtue this product does possess is due to the caffeine it contains. In the drinks on the market caffeine has almost entirely replaced the kola nuts. The purported virtues of coca leaves and kola nuts have been largely exploited, and it was only natural that they should be combined in preparations which would represent the virtues of both. It is not uncommon at present to find persons addicted to the use of drinks of this type. It is well known that parents, as a rule, withhold tea and coffee from their children, but having no knowledge of the presence of caffeine, cocaine and other deleterious agents in these soft drinks, they unwittingly permit their children to be harmed by their use.

In passing it may be of interest to note that life insurance companies are considering the status of soft drink habitués as future risks.

In conclusion Dr. Kebler spoke of drug addiction and told how there were offered as cures for drug habits, nostrums which contained large proportions of the habit-forming drug. He also touched upon the evil done by cocaine pedlers, and upon other topics of a germane nature.

Aids to Success.

The success of a drug store, said D. J. Kuhn, in the *Retail Druggist*, depends upon its management, the stock carried, judicious advertising, competent employees, and giving to everyone entering the store a square deal. First he put the manager who should have a knowledge of the multitude of details characteristic of the drug business, and the ability to select satisfactory assistants. Next in order, Mr. Kuhn named a well-selected, well-displayed stock, calling particular attention to the trade-attracting value of artistically designed window displays of one thing at a time. Prompt delivery, package slips, an adequate lighting system, and a well-used mailing list were favorite trade-getting aids in Mr. Kuhn's business. He had also found it profitable to keep his prescription department spotlessly clean, from spatulas to sink, and to invite physicians to inspect it.

Antiseptic Tooth-Wash.

Thymol	2.5 grammes.
Benzoic acid.....	25.0 grammes.
Tincture of eucalyptus.....	125.0 grammes.
Oil of peppermint.....	8.0 grammes.
Alcohol (90%)....to make	1000.0 c.c. (mils).

Elm Bark to Preserve Lard.

R. M. Altmann, a recent graduate of the Massachusetts College of Pharmacy, doubtless has a well developed bump of adaptation. He had heard that to preserve their winter's store of bear's grease the Amerinds (as the ethnological sharps have renamed the aboriginal red-men) melted the fat with shredded elm bark. The physical difference between the fat of the bear and that of the pig is not great; and Mr. Altmann experimented with the preservative properties of the bark of *ulmus flavus* as applied to lard.

In his graduation thesis he told how he had prepared some purified leaf lard and melted it on a water-bath with pieces of elm bark in the proportion of 2 drams to the pound of fat. When the bubbles had ceased to rise, indicating that all the moisture had been expelled, the lard was strained and stirred until cool. The product was divided into a number of portions and exposed to the atmosphere at different temperatures for three weeks. At the end of that time none of the samples gave any indication of rancidity when tested with Schiff's reagent. An ointment of potassium iodide made with a sample of this lard without the addition of any potassium carbonate remained uncolored after a week's exposure to the atmosphere.

Mr. Altmann believes that the preservative influence of elm bark is due to the clarifying action of the albuminoids it contains and the dehydrating action of the gum.

Rose-Almond Cream.

Blanched sweet almonds.....	50 grammes.
Castile soap.....	3 grammes.
White wax.....	3 grammes.
Oil of sweet almonds.....	3 grammes.
Spermaceti	3 grammes.
Oil of bergamot.....	3 grammes.
Oil of lavender flowers.....	1 gramme.
Oil of rose geranium.....	1 gramme.
Alcohol (90%).....	75 grammes.
Rose water.....	300 grammes.

Pound the almonds to a smooth paste, and emulsify with the rose water. Melt the soap, the wax, and the spermaceti in the almond oil at a gentle heat; transfer this mixture to a warm mortar and add little by little the emulsion of almonds with constant trituration. Dissolve the aromatic oils in the alcohol and add in divided portions to the other ingredients.

A Simple Gilding Dip.

According to the *Keystone* metallic articles may be gilded by supporting them upon a clean piece of zinc immersed in a solution made as follows:

Fine gold.....	6 grains.
Nitro-hydrochloric acid.....	enough.
Potassium cyanide.....	36 grains.
Hot water.....	1 pint.

Heat the gold on a sand bath with sufficient acid to dissolve it, and when it is dissolved, add the solution to the water in which the cyanide has been dissolved. Stir with a glass rod; filter through paper if necessary.

Before it is applied, this gilding solution should be heated to about 180° F.

O. Henry as a Druggist.

Not very long before his death, O. Henry, to use his pen name, or William Sydney Porter, to be exact, was "written up" in the CIRCULAR (for March, 1909, page 162) as a druggist. He began his career as a handler of "salts" and soda water in the store of his uncle, W. C. Porter, of Greensboro, N. C., of which town he was a native. It is said that he also worked in a drug store in Texas for a short while, and in the dispensing department of an institution in Ohio for a longer period, but as to the truth or otherwise of these statements the writer hereof is in ignorance. He has been in the old Porter store, however, and has talked to people in Greensboro who knew the young man who afterward became famous as the most popular short story writer of his day. O. Henry himself has been quoted as saying that he was not a druggist and that many published accounts of his life (about which there seems to have been much mystery) made him smile by being so wide of the mark.

In one of his inimitable stories,* O. Henry tells of a Denver lawyer who had—or pretended to have (the author leaves us in some doubt as to this point)—an attack of aphasia, and while so affected found himself on a train bearing a number of Western delegates to a meeting of a national pharmaceutical society to be held in New York. We believe that no druggist can read the author's own account of what followed without realizing that he had a more intimate knowledge of the business than could have been secured by the perusal of an encyclopedia in search of facts and names. He says:

The car was well crowded with men, among whom, I told myself, there must have been some common interest, for they intermingled freely and seemed in the best good humor and spirits. One of them—a stout, spectacled gentleman enveloped in a decided odor of cinnamon and aloes—took the vacant half of my seat with a friendly nod and unfolded a newspaper. In the intervals between his periods of reading we conversed, as travelers will, on current affairs. I found myself able to sustain the conversation on such subjects with credit, at least to my memory. By and by my companion said:

"You are one of us, of course. Fine lot of men the West sends in this time. I'm glad they held the convention in New York; I've never been East before. My name's R. P. Bolder—Bolder & Son, of Hickory Grove, Mo."

Though unprepared, I rose to the emergency, as men will when put to it. Now must I hold a christening, and be at once babe, parson and parent. My senses came to the rescue of my slower brain. The insistent odor of drugs from my companion supplied one idea; a glance at his newspaper, where my eye met a conspicuous advertisement, assisted me further.

"My name," said I, glibly, "is Edward Pinkhammer. I am a druggist, and my home is in Cornopolis, Kan."

"I knew you were a druggist," said my fellow traveler, affably. "I saw the callous spot on your right forefinger where the handle of the pestle rubs. Of course, you are a delegate to our National Convention."

"Are all these men druggists?" I asked, wonderingly.

"They are. This car came through from the West. And they're your old-time druggists, too—none of your patent tablet-and-granule pharmashootists that use slot machines instead of a prescription desk. We percolate our own paragon and roll our own pills, and we ain't above handling a few garden seeds in the spring, and carrying a side of confectionery and shoes. I tell you, Hampinker, I've got an idea to spring on this convention—new ideas is what they want. Now, you know the shelf bottles of tartar emetic and Rochelle salt Ant. et Pot. Tart. and Sod. et Pot. Tart.—one's poison, you know, and the other's harmless. It's easy to mistake one label for the other. Where do

druggists mostly keep 'em? Why, as far apart as possible, on different shelves. That's wrong. I say keep 'em side by side, so when you want one you can always compare it with the other and avoid mistakes. Do you catch the idea?"

"It seems to me a very good one," I said.

"All right! When I spring it on the convention you back it up. We'll make some of these Eastern orange-phosphate-and-massage-cream professors that think they're the only lozenges in the market look like hypodermic tablets."

"If I can be of any aid," I said, warmly, "the two bottles of—er—"

"Tartrate of antimony and potash, and tartrate of soda and potash."

"Shall henceforth sit side by side," I concluded, firmly.

"Now, there's another thing," said Mr. Bolder. "For an excipient in manipulating a pill mass which do you prefer—the magnesia carbonate or the pulverized glycyrrhiza radix?"

"The—er—magnesia," I said. It was easier to say than the other word.

Mr. Bolder glanced at me distrustfully through his spectacles.

"Give me the glycyrrhiza," said he. "Magnesia cakes."

We arrived in New York about ten at night. I rode in a cab to a hotel and wrote my name "Edward Pinkhammer" in the register.

I thought the hotel clerk looked at me five seconds too long. I had no baggage.

"The Druggists' Convention," I said. "My trunk has somehow failed to arrive." I drew out a roll of money.

"Ah!" said he, showing an auriferous tooth, "we have quite a number of the Western delegates stopping here." He struck a bell for the boy.

I endeavored to give color to my role.

"There is an important movement on foot among us Westerners," I said, "in regard to a recommendation to the convention that the bottles containing the tartrate of antimony and potash and the tartrate of sodium and potash be kept in a contiguous position on the shelf."

"Gentleman to three-fourteen," said the clerk, hastily. I was whisked away to my room.

Finally the wife of the hero follows him to New York and when she embraces him and calls him by name, what follows is thus told:

I unwound her arms respectfully, but firmly.

"Madam," I said, severely, "pardon me if I suggest that you accept a resemblance too precipitately. It is a pity." I went on, with an amused laugh, as the thought occurred to me, "that this Bellford and I could not be kept side by side upon the same shelf like tartrates of sodium and antimony for purposes of identification. In order to understand the allusion," I concluded airily, "it may be necessary for you to keep an eye on the proceedings of the Druggists' National Convention."

Valuation of Perborates.

To determine the amount of available oxygen in perborates, which are coming into wide use as bleaching agents, Bosshard and Zwicky (*Apoth. Zeit.*) direct that a weighed quantity of the perborate be introduced into a 100-c.c. (mil) flask, and mixed with three or four times its weight of pure manganese dioxide. A small test-tube containing 10-per cent. sulphuric acid is introduced into the flask which is then fitted to a graduated eudiometer tube. The test-tube is then inclined so as to bring the acid solution into contact with the mixed salts. When the reaction has ceased the volume of evolved gas is read off (with the usual corrections for temperature and pressure). Half the oxygen liberated is derived from the perborate; therefore the desired percentage may be determined thus: When a = the weight of the perborate, and b = the volume of gas evolved, the percentage of available oxygen = $16b/224a$ at 0°C ., and 760 m.m. pressure. If carbonates be present the gas must be washed with solution of sodium hydroxide.

*"A Ramble in Aphasia," copyrighted by Doubleday, Page & Co., and here quoted in part by their kind permission.

Physiological Laboratory Notes.

MODIFICATION OF TEICHMANN'S TEST FOR BLOOD.

Teichmann's test for the identification of blood is carried out by transferring a small drop of the liquid under examination to a slide, spreading it out with a glass rod, adding one drop of a 1/10 per cent. sodium chloride solution, and evaporating the mixture to dryness on a water-bath or over a small flame. The residue is then covered with a cover-glass and on the edges of the latter one or two drops of glacial acetic acid are placed. The slide is then heated gently, adding if necessary one or two drops more of glacial acetic acid until the space between the slide and cover-glass is filled with acid. When viewed through a microscope rhombic, yellow-brown needles of hematine hydrochloride, commonly called hemine crystals, can be seen, if blood is present. Déniges (*Bull. soc. pharm. Bordeaux*, through *Rép. de Pharm.*) has found that this process as well as Eyssoutier's and Strzyzowski's modifications are not sensitive enough and he proposes the following method for detecting blood. This method differs from that of Teichmann in the following manipulations: (1) The substance under examination is not spread out; (2) superheating is avoided; (3) the acetic acid by a properly regulated heating is allowed to penetrate the residue and to act upon the hemaglobin; (4) at a properly regulated temperature the acetic acid surrounding the residue is evaporated, while the acid with which the residue is moistened is not driven off.

TEST FOR UROBILIN, UROBILINOGEN AND BLOOD IN URINE.

For the detection of urobilin, urobilinogen, and blood in urine, Florence (*Journ. pharm. chim.*) recommends the following reagent: Pyridine, 10 grammes; alcohol, 10 grammes; chloroform, 10 grammes; zinc acetate, 1.3 grammes. Two to 3 c.c. (mils) of the urine are mixed with 4 to 6 c.c. (mils) of the reagent and shaken so as to avoid emulsification. After standing, the lower layer will remain colorless if both urobilin and urobilinogen are absent. When the former is present, a green fluorescence is produced at once, while in the presence of the latter the fluorescence is produced only gradually. Biliverdin turns the mixture greenish and after a short while renders the liquid fluorescent. The presence of blood is indicated when the mixture exhibits a pink or cherry-red color.

TEST FOR BLOOD IN URINE.

Fleig, (*L'union pharm.*) has found that fluorescein is a more sensitive reagent for the detection of blood in urine than Meyer's reagent (phenolphthalein), showing one part of blood in one million parts of urine. The reagent is prepared by dissolving 0.25 gramme of fluorescein in 100 c.c. (mils) of a 20 per cent. caustic potash solution, adding 10 grammes of finely powdered zinc and heating with constant shaking until the liquid is no longer fluorescent. The mixture is then filtered while still hot and preserved, preferably with the addition of a small quantity of zinc dust in yellow bottles protected from light. If 0.25 to 1 c.c. (mil) of this solution be mixed with 2 c.c. (mils) of urine and 3 drops of hydrogen dioxide solution added, a fluorescence occurs in the urine if blood be present, the intensity varying with the amount of the latter present.

VALUE OF MEYER'S REAGENT FOR THE DETECTION OF BLOOD IN URINE.

According to Labat (*Bull. soc. pharm. Bordeaux* through *Rép. de pharm.*) the value of Meyer's reagent (see the CIRCULAR for July, 1910, page 358) for the detection of blood must be seriously questioned. Several substances, such as ferric chloride and copper sulphate, although very rarely present in urine, give similar reactions, which, however, are not given, when the urine is boiled. Labat bases his objection on the results of the examination of 124 samples of urine, in each of which the presence of blood could be proven microscopically by the presence of hemine crystals. Eighty-four of these samples did not give a coloration with Meyer's reagent and in only 40 was the reaction positive; in 13 of the latter the blood was visible to the naked eye, or by the aid of the spectroscope. To make the reaction more sensitive Telmon and Sardou have recommended to dilute the urine with acetic ether, by which substances which might retard the reaction are eliminated. Labat admits that the sensitiveness of the reaction is considerably increased, but he has found that by this modification a positive reaction is obtained at times with normal urine free from blood. This view is also taken by Fleig. The author therefore recommends to examine the urine for blood with the aid of a spectroscope or preferably a microscope. In case these instruments are not available the test may be made with Meyer's reagent, using the modification originated by Fleig, i.e., boiling the urine and diluting it with one volume or one and a half volumes of a normal urine with a higher specific gravity. If a distinctly red color is obtained the urine may be pronounced as containing blood.

URINES WITH A BLOOD-LIKE APPEARANCE.

Very often urines are met with, which although not containing red blood corpuscles, give when viewed through a spectroscope two absorption bands, which on superficial observation may be taken for those produced by oxyhemaglobin. By a more careful examination, however, according to Déniges (*Bull. soc. pharm. Bordeaux*, through *Rép. de pharm.*) it will be found that the two bands are more separated from each other than the two produced by the presence of blood. On acidifying the urine the red color disappears, and the one band in the yellow of the spectrum, can also no longer be seen. Urines, which possess a red color, are invariably alkaline, the alkalinity being produced either by the administration of alkaline salts to the patient, or by the urine having undergone a partial fermentation. To prove the presence of blood the benzidin test should be made.

TESTING BENZIDIN FOR USE IN THE BLOOD TEST.

Schumm (*Merck's Ann. Report*) says that commercial benzidin is not always suitable for applying the blood test. The following method of testing the substance is suggested: A saturated solution of benzidin in alcohol is rendered acid with acetic acid, or a saturated solution of benzidin in glacial acetic acid, is mixed with an equal quantity of hydrogen dioxide solution, and a few c.c. of water are added. No coloration, or, at any rate, only a slight coloration, ought to occur within a few minutes.

TEST FOR CRYOGENIN IN THE URINE.

Déniges (*Bull. soc. pharm. Bordeaux*) recommends the following method for detecting cryogenin in

urine, no matter whether acid or alkaline. Ten c.c. (mils) of urine are mixed with 2 or 3 grammes of lead or manganese peroxide, the mixture made alkaline with caustic soda and filtered. In the presence of cryogenin the filtrate will exhibit a more or less deep orange color. When further urine is mixed with an equal volume of acid mercuric sulphate solution a yellow color is produced, varying in intensity with the amount of cryogenin present. By replacing acid mercuric sulphate solution by a solution of mercuric acetate, in normal urines precipitates are produced which vary in color from white to yellowish white, while urines containing cryogenin yield orange-red precipitates.

TEST FOR ALBUMIN IN URINE.

Ogneo (*Apoth. Zeit.* through *Chemist and Druggist*) gives the following new method for the detection of albumin in urine. Five to six c.c. (mils) of urine are acidified with acetic acid, and 1 c.c. (mil) of tincture of iodine added. The whole is well shaken. A brownish precipitate results. Solution of sodium bisulphite is then added to decolorize the iodine solution. If a precipitate is then present, the urine contains albumin; but if albumin be absent, the liquid remains quite clear.

SIMPLE TEST FOR SUGAR IN URINE.

Hasselbalch and Lindhard (*Hospitalstidende* through *Journ. Am. Med. Asso.*) describe a new test for determining without laboratory facilities whether an applicant for life insurance, for instance, has pathologic proportions of sugar in the urine. Their technique dispenses with the necessity for removing the albumin beforehand, and the error from the "autoreduction" of the urine is less, they assert, than with any other of the usual methods, the alkaline solution of safranin used not being reduced by uric acid or creatinin. The findings with this and the ordinary tests in long series of normal and glycosuric persons are tabulated for comparison, all apparently confirming the reliability of the test and the keeping properties of the reagent. This is a 1 in 10,000 solution of safranin; it does not seem to be affected by alkalies or heat, but the tint changes on the addition of sugar, the deep red tint fading away and the colorless fluid then assuming a yellow or pinkish-yellow tint or fluorescence. One c.c. (mil.) of the 1 in 10,000 safranin solution and 1 c.c. (mil.) of a 1 per cent. solution of potassium hydrate are mixed and the urine added drop by drop, after which the glass is placed in the boiling water bath for three minutes. The above mixture of 1 c.c. (mil.) of each fluid reduces about 0.25 mgm. of grape sugar, from which it is easy to compute the approximate sugar proportion in the urine. The test may be regarded as giving negative findings if the characteristic change of tint does not follow when ten drops of urine are added to a mixture of 3 c.c. (mils.) each of the safranin and the potassium hydrate solutions and the whole is heated in the boiling-water bath for three minutes. Certain other sugars give the reaction as well as grape sugar.

IDENTIFICATION OF LACTOSE IN URINE.

Lactose can be easily detected in urine by converting the sugar into its osazone, a process which may be carried out according to Labat (*Bull. soc. pharm. Bordeaux*, through *Rép. de pharm.*) in the following way: 100 c.c. (mils.) of urine are made slightly alkaline with ammonia and evaporated on a water-bath to

about 10 c.c. (mils.). The mixture is then filtered, the filtrate clarified by the addition of lead subacetate solution and filtered again. To this filtrate an equal volume of the following solution is added: phenylhydrazin one part, glacial acetic acid three parts, sodium acetate two parts, and water twenty parts. After allowing to stand for about an hour, the mixture is cooled. If the urine contains only glucose it is frequently necessary to concentrate the solution in order to obtain the characteristic crystals of glucosazone. If, however, lactose is present, the crystals of lactosazone can easily be seen through the microscope.

DETERMINATION OF SACCHAROSE IN THE PRESENCE OF REDUCING SUGARS.

For the determination of saccharose in the presence of reducing sugars, Lemeland (*Journ. pharm. chim.*) recommends the following process. A convenient quantity of the mixture of the sugars is transferred to a graduated flask of 100 c.c. (mils) contents, mixed with 0.5 gramme of manganese peroxide and heated in a boiling water bath. When the mixture has acquired the temperature of the bath, hydrogen dioxide and caustic potash are added, 30 c.c. (mils) of the former and 2 c.c. (mils) of the latter for each gramme of the reducing sugars. The heating is continued for 35 to 45 minutes, after which time the reducing sugars will have been destroyed. After cooling, the mixture is neutralized exactly with nitric acid, decolorized with animal charcoal or lead acetate, the volume made up with water to measure 100 c.c. (mils) and the solution, after filtering, polarized in the usual way.

FEHLING'S TEST AND FORMALDEHYDE IN URINE ANALYSIS.

Robertson calls attention in the *Prescriber* to the fact that the addition of formaldehyde to urine as a preservative interferes with the Fehling test for sugar by itself causing a precipitate of cuprous oxide independent of the presence of sugar.

TEST FOR BILE PIGMENTS IN URINE.

Stenza (*Nedrl. Tijds. Geneesk.* through *Rép. de pharm.*) recommends the following methods for the detection of bile pigments in urine; 10 c.c. (mils) of the urine under examination are mixed with 20 drops of a 20 per cent. aqueous solution of sodium carbonate and 20 drops of an aqueous solution of calcium chloride of the same strength. If the precipitate formed is white, bile pigments are absent; if yellow, it is filtered off and dissolved in 3 c.c. (mils) of a mixture of 95 c.c. (mils) of alcohol and 5 c.c. (mils) of concentrated sulphuric acid. A yellow solution will be obtained which on addition of one drop of a 0.5 per cent. aqueous solution of sodium nitrite will assume a green color, when bile pigments are present. Urines rich in urobilin produce with calcium carbonate a pink precipitate.

NEW TEST FOR URIC ACID.

When an aqueous solution of an alkali salt of uric acid is mixed with an aqueous solution of zinc sulphate, the white gelatinous precipitate of basic zinc urate will soon acquire a greenish color turning to blue. This reaction is due to oxidation by the air, according to Ganassini (*Rev. pharm. de Flandres* through *Nouv. rem.*). The presence of albumin does not interfere with this reaction, which according to the author can be used with advantage for the detection of uric acid in blood also.

Abstracts

Unreliability of Tablets of Bismuth, Opium and Phenol.

Puckner and Hilpert (*Journ. Am. Med. Asso.*) supplement a report made several years ago in which the unreliability of tablets of bismuth, opium and phenol was pointed out. They found at that time that these tablets sold by different firms contained amounts of phenol ranging from 76.65 per cent. down to 12.66 per cent. of the amount claimed. Wide publicity having been given to this report, experiments were recently made to determine whether the firms whose products had been before examined had made any improvement. The result shows that while the product of some manufacturers has been improved somewhat, that of others is worse than before. One firm whose product contains only two-thirds of the amount of phenol claimed now places on the label the following legend: "The amount of phenol in this tablet, on account of its volatile nature, is approximate." In an editorial note, the *Journal* says, that while the findings are not creditable, it is not willing to charge dishonesty or incompetency of reputable manufacturers. It is inclined to think that they have little respect for physicians using such complex mixtures, and therefore think that care as to scientific accuracy is needless.

Estimation of Formaldehyde.

The following simple method for the estimation of formaldehyde has been recommended by Herrmann (*Chem. Zeit.*) About 4 to 4.5 grammes (exactly weighed) of the formaldehyde solution under examination are transferred to a glass-stoppered 150 to 200 c.c. (mils) flask, 3 grammes of powdered ammonium chloride are added and then 25 c.c. (mils) of double normal caustic soda solution. The flask is then closed well and allowed to stand until the mixture has assumed ordinary temperature. After the addition of 50 c.c. (mils) of water and 4 drops of a one per cent. methyl orange solution the excess of the alkali is titrated with normal sulphuric acid. By multiplying the number of c.c. (mils) of caustic soda, used for the formation of hexamethylenetetramine, by 0.12, the amount of formaldehyde in grammes is obtained. In the case of technical formaldehyde, which usually contains acid, the latter should previously be exactly neutralized.

Blindness from Santonin.

Children under two years of age should never be given santonin. Even when given to older children this vermifuge is liable to produce serious complications, especially when given with castor oil, which increases its solubility. Baxter (*La sém. méd.* through *L'Union pharm.*) reports a case of blindness produced by the administration of santonin to a five year old girl. As the patient vomited out the first dose of one-half grain in castor oil, a second dose of one-half grain in 8 grammes of the oil was given; no noticeable effect was produced until about eight hours, when a large number of worms were discharged. The child became very feeble during the next two days and on the third day it was found that she had become totally blind. She has never recovered her eye-sight.

Formaldehyde in Alcohol.

For the identification of formaldehyde in alcohol Lindet (*Zeit. anal. Chem.*) has found the following method very convenient. A small amount of dry casein is mixed with 10 c.c. (mils) of the alcohol under examination, followed by a few drops of diluted ferric chloride solution, 10 c.c. (mils) of syrupy phosphoric acid and 10 to 15 c.c. (mils) of sulphuric acid. In the presence of formaldehyde a violet color is produced. By this method one part of formaldehyde can be detected in 300,000 parts of alcohol. Butylaldehyde and valerylaldehyde give a similar color. When formaldehyde is present to any large extent, a black color is produced, and in such a case the alcohol should be properly diluted before being subjected to the test. In the absence of formaldehyde only a brown color is produced.

Necessity of "First Aid" Instruction.

Johnson (*Journ. Am. Med. Asso.*) reports the case of a boy accidentally shot through the knee by a younger brother who lost his life through lack of immediate aid. The bullet entered his knee-joint from the anterior side, just internal to the patella, and passed completely through the joint, severing the popliteal artery. The author arrived about ten minutes after the accident had occurred, but the loss of blood had been so great that the patient lived but a few minutes, never having regained consciousness. This, says the author, emphasizes the necessity of instruction in the public schools regarding "first aid to the injured."

Constituents of Fagara Xanthoxyloides.

The bark of the root of fagara xanthoxyloides contains according to Thoms (*Pharm. Zeit.*) a dark-colored very poisonous oil, from which, after prolonged standing, a crystalline substance separates which has been named fagarol. This body, which melts at 127-128°C., and possesses the formula $C_{20}H_{19}O_6$, seems to be nearly related to cubebin. From the peel of the seeds 2.4 per cent. of a volatile oil was obtained from which a crystalline substance could be separated; the latter, which is a strong fish poison, has been named xanthotoxin. It melts at 144-145°C. and has the empirical formula $C_{12}H_8O_4$.

Constituents of Coconut Oil.

Haller and Lassieus (*Compt. rend.* through *Chem. Drug.*) have isolated a small amount of odorous volatile substances from ordinary coconut fat. They find that this essence, which may be called an essential oil, contains methyl-heptyl-ketone, methyl-nonyl-ketone, and a small quantity of an optically active aldehyde. It closely resembles ordinary oil of rue (*ruta graveolens*) in its general characters.

Chocolate as a Cure for Morphine Habit.

It is reported in the *Confectioners' Journal* that the attending physician and the matron at the county hospital at Binghamton, N. Y., have found by experimentation that by gradually replacing morphine with unsweetened chocolate they were able in time completely to deprive morphine habitués of the narcotic. The transition period is said to be entirely free from sleeplessness and other disturbing symptoms.

New Test for Morphine.

The following test for morphine has been devised by Denigès (*Compt. rend.*). Ten c.c. (mils) of a solution of the alkaloid (containing not less than 0.003 per cent.) are transferred to a test-tube, mixed well with 1 c.c. (mil) of hydrogen dioxide solution and 1 c.c. (mil) of ammonia water and then with one drop of a 4 to 1 per cent. solution of crystallized copper sulphate. (The strength of the latter solution is according to the less or greater concentration of the morphine solution.) After shaking well again, a reddish color will be developed, varying in intensity with the amount of morphine present. The coloration is instantaneous when the solution contains at least 0.1 per cent. of morphine. This test can also be applied to solutions suspected to contain morphine, provided they are colorless or almost colorless, and for a quantitative estimation of the alkaloid in syrup of morphine. For the latter purpose 10 c.c. (mils) of the syrup are treated as outlined above and compared colorimetrically with a solution of morphine hydrochloride of known strength treated in the same manner. Residues obtained in toxicological analysis, which are suspected to contain morphine, are treated with a drop of hydrochloric acid, the solution evaporated to dryness, the residue dissolved in a small drop of hydrogen dioxide solution and then mixed with one drop of a solution prepared by mixing 1 c.c. (mil) of a 3 or 4 per cent. solution of copper sulphate with 5 c.c. (mils) of ammonia water and 5 c.c. (mils) of water. A red coloration of the liquid indicates the presence of morphine. This reaction is not given by codeine, thebaine, papaverine, narceine and narcotine. Positive, but different colorations, are obtained with direct derivatives of morphine, namely, oxymorphone, apomorphine, heroine, etc.

The Wasserman Reaction.

Kaplan (*Journ. Am. Med. Asso.*) from a study of over 3,200 Wasserman reactions concludes that the value of the test for diagnosis and therapy has been greatly overrated. He maintains that promiscuous use of this test by insufficiently instructed physicians is as dangerous as the use of reports from tyro sero-diagnosticians. He lays stress on this point because he has learned of its being the cause of serious damage.

Taxicatin a New Glucoside.

Lefevre (*Journ. pharm. chim.*) has succeeded in isolating a new glucoside from the twigs of *taxus baccata*, which he has called taxicatin. It possesses the formula $C_{13}H_{22}O_7$ and by hydrolysis with diluted sulphuric acid or emulsin it yields d-glucose and a non-crystallizable product with the formula $C_7H_{12}O_2$. In addition to the glucoside the author found the twigs to contain emulsin and invertin.

The Sputum in Typhoid Possibly Infectious.

Tenney in a paper presented at a meeting of the American Society of Tropical Medicine reported a study of the saliva and sputum in fifty-three cases of typhoid fever. He found that while the sputum does not frequently contain the typhoid bacillus, it does so occasionally, and on that account it cannot be ignored as a source of infection.

Poisoning by Epsom Salt.

Boos (*Journ. Am. Med. Asso.*) concludes that magnesium sulphate (Epsom salt) in bulk or in concentrated solution, is absorbed, in part at least, from the gastro-intestinal tract into the blood, and if a sufficient amount is absorbed at a time poisoning will result. Of ten cases he has collected, six resulted fatally. The slowness of its excretion renders its repeated dosage in concentrated solution risky on account of possibility of poisoning by cumulation. The symptoms of poisoning, as noted in the ten cases, are largely those of paralysis and irritation of the bowel, diminution of the urine, and, in the majority, a marked paralyzing effect on the respiration. It has also an effect on the reflex centers of the cord and on the sensibility as shown by Meltzer. The author questions Meltzer's recommendation of the subcutaneous use of magnesium sulphate, and says that it should be employed, if ever, only with the greatest care. In cases of suspected magnesium poisoning large quantities of normal salt solution should be given intravenously, and Meltzer's experiments suggest the possible value of the subcutaneous use of calcium salts in dilute solution.

Cactus Grandiflorus.

Hatcher and Bailey (*Journ. Am. Med. Asso.*) in view of conflicting testimony regarding the therapeutic activity of *cactus grandiflorus* conducted an extended series of experiments to determine the question. The authors say that there can be no doubt that much of the misunderstanding which exists in regard to this drug has arisen through the substitution of other substances for *cactus grandiflorus*. They consequently were careful to procure authentic specimens. They were unable to obtain any evidence that the true Mexican *cactus grandiflorus* possesses any pharmacologic action whatever, but on the contrary, it appears to be a singularly inert substance when administered either by the mouth or by the vein. When colossal doses of *cactus grandiflorus* are given by the vein they sometimes—but not always—appear to exert an extremely feeble action on the heart; but this action is so slight that its nature could not be determined.

Caution as to the Use of Iodine Internally.

Keehl (*Münch. med. Woch. through Med. Rec.*) urges that the thyroid always be examined before pushing iodine or iodides. He considers enlargement of the thyroids a contraindication to the use of the drug in arteriosclerosis. The patient should also be investigated as to the possible presence of thyrotoxic symptoms, which also contraindicate iodine. The author believes further that indiscriminate use of iodine causes both enlargement and hyperactivity of the gland. If iodine is given when thus contraindicated, the condition set up appears to resemble the so-called "iodine cachexia" as described by others.

Ideal Ointment Base.

Fordyce (*N. Y. Med. Journ.*) says that he has found an ideal ointment base in a mixture of wool-fat and ointment of rose water. The proportions of the ingredients may be varied to suit individual cases, but a mixture of 1 part of wool-fat to 3 parts of the cold cream was generally satisfactory.

The Modern Materia Medica.

Antipyreticum Rayman is said to consist of acetanilide, phenacetin, antipyrin, alcoholic extract of Ceylon cinnamon, syrup of orange peel and mucilage of acacia.

Bilifer-Gelodurat Stærke I, exploited as a cholagogue, is in the form of capsules said to contain lithium oleate, extract of belladonna, extract of nuxvomica, extract of rhubarb and a minute quantity of castor oil.

Bromon Robin, a French preparation exploited as a sedative, is a liquid said to contain "bromopeptonates."

Calcodat is a trade name for calcium peroxide.

Calmine is another name for the mono-sodium salt of veronal.

Cholera Serum is a mixture of horse and goat serums.

Cicatricine is said to consist of thiosinamin and antipyrine dissolved in water. It is used hypodermically.

Credargan is a form of colloidal silver.

Crepitin is an albuminoid from the milky juice of hura crepitans. It acts like abrin and ricin.

Erséol Prunier, exploited for the treatment of rheumatism, neuralgia, grippe, etc., is quinoline sulphasalicylate.

Ferronin is said to be a saccharated tincture of iron.

Glyco-Phénique Déclat is a 10 per cent. solution of carbolic acid in glycerin.

Haemofor is an aperient tincture of iron. It is also marketed in combination with arsenic.

Hérad's Serum is a solution of sodium chlorate, potassium chloride, sodium phosphate and sodium chloride in water.

Howell's Serum consists of sodium chloride, calcium chloride, potassium chloride and sodium bicarbonate dissolved in water.

Hypnoval, exploited as a hypnotic, is amido-chloral bromoisovalerate.

Iodolysin is a compound of thiosinamin and ethyl iodide, intended to promote absorption of fibrous tissue.

Laxanin-Abfuhrschokolade is an aromatized chocolate containing castor oil and phenolphthalein.

Lodua: Ngezi. One of the myrsinaceæ belonging to the family of embelia. The bruised fruit is recommended as a tapeworm remedy.

Magnodat is a trade name for magnesium peroxide.

Medinal is another name for the mono-sodium salt of veronal.

Modiscop is a preparation for hypodermic injection containing morphine, dionine and scopolamine.

Novocol is sodium monoguaiacolphosphate.

Nigrosot Pills are said to consist of creosote and charcoal. They dissolve in the intestines only.

Peroxan is the name for tablets containing among other ingredients calcium peroxide.

Phosphatine Falières is of French origin and is said to contain calcium diphosphate, flour, sugar and fat-free cocoa.

Pilules and Sirop de Chassaing contain pepsin and diastase.

Piutinol is a sulphur, pine oil, glycerin and alcohol mixture for preparing sulphur baths.

Poudre Laxative de Vichy (Dr. Sonligoux) is a mixture of senna leaves (previously extracted with alcohol), fennel seed, anise seed, etc.

Ricilan is aromatized castor oil.

Serum Jodatum is said to be an aqueous solution of sodium phosphate, sodium sulphate and sodium iodide.

Serum Leclarq is said to be a solution of sodium chloride, sodium phosphate and sodium sulphate in water.

Sirop d'Acid Phénique Déclat is a palatable syrup containing carbolic acid.

Huflederkitt (Hoof Putty).

According to the *Pharmaceutical Journal* the preparation known as huflederkitt used for filling cracks in the hoofs of horses is made after one of the following formulas:

I.

Guttapercha	2 parts.
Ammoniac	1 part.
Soot	a sufficient quantity.

Melt the first two ingredients together; stir in enough soot to color, and pour while warm into the cracks, which should have been well cleaned.

II.

Turpentine	3 parts.
Ammoniac	4 parts.
Guttapercha	4 parts.

Melt together at a gentle heat and apply as directed under the first formula.

Dry Shampoo.

This suggestion is found in a recent issue of *Physicians Drug News*:

Orris root.....	6 ounces.
Fuller's earth.....	7 ounces.
Arrowroot starch.....	½ ounce.
Oil of lavender.....	1 dram.
Alcohol	2 ounces.

Reduce the solids to a fine powder; mix this well and spread it out to a thickness of about two inches. On this, spray the oil dissolved in the alcohol, and, after several hours, pass the powder through a moderately fine sieve.

Bouquet Toilet Water.

Oil of bergamot.....	7 grammes.
Oil of citron peel.....	4 grammes.
Oil of sweet orange.....	3 grammes.
Oil of lavender flowers.....	5 grammes.
Oil of saigon cinnamon.....	15 drops.
Oil of neroli.....	15 drops.
Oil of cloves.....	15 drops.
Alcohol (90%).....	900 grammes.
Distilled water.....	225 grammes.

Speaking about odd or striking firm names, how would this do, Alum & Cold, General Contractors?

Notes and Queries.

NOTICE.—It is desirable that all questions to be answered under this head should be received before the fifteenth of the month and they must be accompanied with the name and address of the writer.

Queries are not answered by letter. The information supplied in these columns is intended for the benefit of our readers in general, not for the profit of the individual inquirer only.

Beck's Bismuth Paste.—W. E. B., Maine.—We suppose that this is the preparation you have in mind when you speak of *bismuth vaseline paste*. This remedy, of which there are two forms, is named after Dr. Emil T. Beck, of Chicago, and is used in the diagnosis and treatment of tuberculosis. For the paste used for diagnostic purposes and for the first few injections, the following is the formula:

Bismuth subnitrate..... 30 grammes.

Vaseline 60 grammes.

Mix while boiling.

For a paste for use in the treatment of cases of long standing, the formula is—

Bismuth subnitrate..... 30 grammes.

Wax 5 grammes.

Soft paraffin (120° melting point). 5 grammes.

Vaseline 60 grammes.

Mix while boiling.

In a note contributed to the CIRCULAR for December, 1909, page 633, by Dr. Beck, that authority says:

The vaseline (usually yellow vaseline is used) is first sterilized by the usual method of boiling and is then allowed to cool off. Thereupon the proper quantities of bismuth subnitrate and vaseline are weighed out and then are mixed well in a percolator until a smooth mass is obtained. It is, of course, understood that the bismuth subnitrate must be free from impurities such as arsenic or dust. Some of the preparations of bismuth subnitrate give off more nitric acid than others. (See an article published by Dr. W. S. Baer, *Johns Hopkins Bulletin*, October, No. 223). The preparation is then placed in enamel jars until such time as it may be needed.

When the preparation is to be used the enamel jar containing the same is placed in a water bath, the water being allowed to boil, and thus the preparation in the jar becomes liquefied, and as soon as it is sufficiently so, it may be drawn up into a syringe and is then ready for injection.

Care should be exercised to avoid the admixture of water during the course of preparing the paste. Mixing the bismuth subnitrate with the vaseline while the latter is boiled (our former method of preparation) is not satisfactory for the reason that the bismuth frequently oxidizes and causes the mixture to become black. We have never noticed any effervescence taking place when mixing the bismuth with the boiling vaseline, although that might possibly occur when the vaseline is too hot.

In the CIRCULAR for May, 1909, page 229, is a warning by Dr. Beck of the danger which may be caused by the formation of a nitrite and by the bismuth itself when this paste is employed.

Moth Powder.—J. H. A., Connecticut.—Camphor is one of the best-known moth repellants, and but for its high price would doubtless be the most popular one as well. Naphthalin is much cheaper, and so, notwithstanding its disagreeable odor and the fact that scientific men have said that its presence does not prevent the breeding of moths or the ravages of their larvæ, is largely used by the public to keep moths away, and seemingly with results that take it out of the class of hoodoo remedies. Frequently camphor and naphthalin are mixed, and volatile oils with

strong and pleasant odors, or cedar wood chips, added, to make a moth powder. Tobacco dust is used for the same purpose, either alone or in connection with some of the other things mentioned.

A few formulas from previous issues of the CIRCULAR and elsewhere, follow:

I.

Lupulin 1 ounce.

Powdered camphor..... 8 ounces.

Powdered black pepper..... 8 ounces.

Tobacco dust (snuff)..... 1 pound.

Cedar-wood sawdust..... 2 pounds.

II.

Powdered capsicum..... 4 ounces.

Powdered naphthalin..... 1 pound.

Insect powder..... 1 pound.

III.

Powdered camphor..... 5 ounces.

Powdered naphthalin..... 1 pound.

Cumarin 5 grains.

Oil of neroli..... 16 drops.

Oil of mirbane..... 16 drops.

The surest protection against moths is to pack the articles that may suffer from them in bags and so securely close them that the insect can find no entrance. Paper answers well as a packing material, but all joints should be *pasted*. Of course the packing should be done before the moth has had a chance to lay its eggs in the material.

The Meaning of "Mil."—L. H., Florida, and V. P., Virginia.—"Mil" is an abbreviation of "milliliter," commonly called "cubic centimeter" and written "c.c." We believe the shorter (but not uglier) word is of British origin, and its brevity gives it certain advantages over either the long single word or the combination of two words just quoted, while the fact that it is a word and neither merely initials nor yet two words makes it superior to "c.c." in some respects. We are doing what we can to introduce it to American readers by printing it in parentheses after the letters "c.c." wherever we use the latter. In course of time we hope we may feel justified in dropping the "c.c." and the parentheses and allowing the word "mil" or "mils" to stand alone.

See also notes on this subject in the issues of the CIRCULAR for July, page 365, and February, page 71, both for last year, and April, 1909, page 186.

To Decolorize Ammonia Water.—W. C. Lane, North Carolina, writes: "To decolorize ammonia water that has been colored by contact with metallic containers, use light calcined magnesia. A very small quantity is sufficient. Mix; shake; allow to stand a few minutes; then filter."

We thank Mr. Lane for his kindness and trust that the process he has given will be found of value by many of our readers.

Rat and Roach Paste.—J. H. A., Pennsylvania.—Several formulas for phosphorus rat and roach pastes appear in the issues of the CIRCULAR for November, page 577; October, page 517; and April, page 179, all for last year. A rather comprehensive note on roach foods appears in the issue for January, page 29, which, perhaps, you had not seen when you wrote.

Bed Bug Liquid.—H. S. C., Connecticut, wants a formula for a bed bug liquid that is non-inflammable, and not poisonous to human beings, and will leave no stain.

Carbon tetrachloride applied to bed bugs kills them, and it is non-inflammable. In the sense that corrosive mercuric chloride is poisonous to human beings, carbon tetrachloride is not poisonous, but almost anything is poisonous if misused or used to excess. The principal danger from carbon tetrachloride lies in the anesthetizing effect of its fumes, in which respect it resembles chloroform. The vapor is heavy and accumulates, so thorough ventilation should be provided where it is used. Applied to varnished or painted surfaces, the tetrachloride has a bad effect, but on clothes it acts about the same as benzin.

Elixir of Terpin Hydrate.—L. D. S., New York. —Elixir of terpin hydrate is an official preparation, as is this elixir in combination with codeine and with heroine, formulas for the three preparations being in the National Formulary. Under the federal food and drugs act a drug is deemed to be adulterated if sold under a name recognized in the National Formulary and yet differs from the official article in standard strength or purity. Under the pharmacy law of this State a little more latitude is allowed, as the preparation is deemed to be adulterated if "when sold under or by a name recognized in the Formulary the strength, quality or purity or percentage of the alkaloid or alkaloids or other potent ingredient or ingredients differ from the standard determined by the test or formula given." Druggists should be careful to see that their preparations are not only medicinally what they claim to be, but that they conform to the technical provisions of the law as well.

There have been many complaints about the official formulas for terpin hydrate preparations, and more than a few suggestions for their improvement. Some of the latter are cited here, and readers, bearing in mind the warning as to the law, may be able to make good use of them.

Prof. E. Fullerton Cook, acting for the Philadelphia branch of the American Pharmaceutical Association, collected a number of proposed changes for the text of the National Formulary, among them the following for an elixir of terpin hydrate:

Terpin hydrate.....	256 grains.
Spirit of bitter almond.....	20 minims.
Compound spirit of orange.....	30 minims.
Glycerin	320 minims.
Water	2 fl. ozs.
Spirit of wild cherry.....	4 fl. ozs.
Alcohol.....	enough to make 2 pints.

No directions for mixing were given.

At last year's meeting of the American Pharmaceutical Association F. W. A. Hain offered the following formula for a "stable solution or elixir of terpin hydrate, useful as a vehicle for codeine, heroine, etc., and compatible in many mixtures":

Terpin hydrate.....	30.0 grammes.
Hot glycerin.....	650.0 c.c. (mils).
Fluid extract of wild cherry.	62.5 c.c. (mils).
Alcohol	235.0 c.c. (mils).
Glycerin, enough to make...	1000.0 c.c. (mils).

Powder the terpin hydrate and dissolve it in the

hot glycerin; when partly cooled add the other ingredients.

Each 4 c.c. (mils) of this solution contains 0.12 gramme of terpin hydrate—about 2 grains to the dram, which is nearly double the quantity directed by the official formula. Of course the quantity could be decreased as desired, and the smaller the amount used the less likelihood of separation. Hain said that to meet climatic conditions he sometimes found it advisable to reduce the amount of terpin hydrate to 25 grammes, or 0.1 gramme in each 4 c.c. (mils).

Dr. E. H. Squibb, in the *Critic and Guide*, offers the following formula as an improvement on the official elixir:

Terpin hydrate.....	17.5 grammes.
Tincture of sweet orange peel.	10.0 c.c. (mils).
Solution of saccharin.....	1.0 c.c. (mil).
Alcohol	436.0 c.c. (mils).
Glycerin, enough to make....	1000.00 c.c. (mils).

It should be remembered that sugar sometimes separates from the syrup used in making the elixir, and possibly may be mistaken for crystals of terpin hydrate.

Creamy Clothes Cleaner.—R. F. S., Illinois, writes that some five or six years ago there was printed in the CIRCULAR a formula for a clothes cleaner containing, among other things, soap, ammonia, chloroform or ether, and benzin. He adds that the product was a white emulsion, and requests that we reprint the formula.

A hurried glance through the annual indexes for four years around the time mentioned by our querist reveals a dozen or more references to clothes cleaners, and a further search of the volumes shows two formulas, either of which might possibly be the one he seeks. They are reprinted herewith:

Electric Benzin.

From the CIRCULAR for May, 1906, page 164:

White castile soap.....	1 dram.
Alcohol	½ fl. oz.
Glycerin	1 fl. oz.
Ammonia water.....	1 fl. oz.
Ether	1 fl. oz.
Water.....	enough to make 16 fl. ozs.
Benzin	enough.

Dissolve the soap in the water, then add the remaining ingredients, except the benzin. Into a 4-ounce wide-mouthed bottle put 3 drams of the solution, and then add benzin, little by little, shaking well after each addition, until the bottle is full.

The author of this formula states that the finished product will be a thick white cream.

As benzin is very inflammable, the manufacture of this product should not be conducted in a room where there is any light fire, and caution should be given the purchaser regarding its use.

Chloroform Cleaner.

Castile soap.....	4 drams.
Chloroform	4 drams.
Ammonia water.....	1 ounce.
Alcohol	4 drams.
Water.....	enough to make 3 ounces.

Shake well and keep in a tightly stoppered bottle.

Quinine Hair Wash.—H. G. C., Pennsylvania.—See the note and formulas in last month's CIRCULAR, page 83.

Making Tablet Triturates.—Forrest H. Orr, acting for the Lyttle & Orr Company, Indiana, noting the request of "Ego" in the CIRCULAR for January, page 34, for some help from his brother pharmacists in the matter of tablet triturate making, writes:

We make our own tablet triturates of morphine and codeine sulphates in all the different sizes, and expect to make strychnine sulphate, heroine, and calomel and soda tablets in the various sizes.

We are using a hard rubber tablet triturate mold which makes fifty 1-grain tablets, and have had the best of success.

In making the morphine and codeine tablets we use a diluent or base composed of 5 parts of milk sugar and 1 part of cane sugar; and a liquid excipient composed of 5 parts of alcohol and 1 part of water; and find these proportions make excellent tablets of the right degree of hardness, which are as nearly perfect as any tablet could be, regardless of where purchased.

We usually make 1,000 tablets at a time, and after weighing out the proper quantity of active ingredient, milk sugar and cane sugar (the weight of the two last ingredients being determined anew for each different size of tablet), triturate them thoroughly and pass them through a fine sieve, then in a mortar moisten only a little more than enough of the powder at a time to fill the holes of the top plate of the mold, and when properly moistened rub into the holes with a horn spatula from both sides of the plate to insure perfect tablets, and press out with the lower (or peg) plate, and dry by placing in a warm place protected from dust over night or for about twenty-four hours.

It will take a little experience in moistening the powder, so as not to moisten too much or too little; as a rule, about $\frac{1}{2}$ dram is the proper amount for fifty tablets; when the powder will stick together when pressed between the fingers it is of about the right consistency. Some little pressure must be used in putting the powder into the mold in order to secure a firm tablet, the less pressure used the more friable the tablet; strong alcohol used as an excipient also makes a friable tablet, and the use of a weak alcoholic liquid results in hard tablets.

In making calomel and soda tablets greater care must be taken as they are more difficult to make, because calomel and sodium bicarbonate moistened with water and exposed to light become dark, and if the bicarbonate contains a trace of normal carbonate they will darken more readily; therefore a water-free excipient should be used, and if strong alcohol be used the tablets are apt to be too friable.

A thousand tablets can easily be made in an hour or hour and a half at a saving of about \$1.75 per 1,000, besides the satisfaction of practicing professional pharmacy.

The following are about the right proportions for 1,000 $\frac{1}{4}$ -grain morphine sulphate tablet triturates:

Morphine sulphate.....	250 grains.
Milk sugar.....	995 grains.
Cane sugar.....	199 grains.
Alcohol (80%).....	about 1 to 1 $\frac{1}{2}$ ounces.

I hope this may be of some service to the friend making the inquiry.

A "Brother Pharmacist," Pennsylvania, writes:

If Brother "Ego" is using a hard-rubber tablet triturate mold, which is usually marketed as a 1-grain mold, but which really holds 1 $\frac{1}{2}$ grains, and will use $\frac{1}{4}$ grain of powdered acacia to each tablet, he will have no trouble in dispensing a nice tablet. We keep on hand for this purpose 1 fluid ounce of alcohol to which 8 drops of water are added; and proceed as follows:

Atropine sulphate.....	1/10 grain.
Powdered acacia.....	6 grains.
Sugar of milk.....	30 grains.
Alcohol (as above.).....	enough.

Mix the ingredients thoroughly in a mortar; place the powder on an ointment slab, and add enough of the above alcohol to make a stiff paste, and work into the molds.

The exact quantity of alcohol cannot be given as it depends entirely on the temperature of the room. If "Ego" will do a little experimenting with the proportion of acacia and sugar of milk he will soon get the hang.

These correspondents show the kind of spirit that we are always pleased to see manifested by pharma-

cists, and for their communications we extend thanks not only on behalf of "Ego" and ourselves, but for our readers generally. The process outlined by Mr. Orr is quite similar to the one recommended by Prof. Charles Caspari, Jr., in his Treatise on Pharmacy, and, indeed, embodies the principles set forth in most works of this nature.

There is an article on this subject on page 124.

Guttæ Inosemzoff.—B. S. G., New York.—Dr. Fedor J. Inosemzoff (or Inosemzow) was professor of surgery in the University of Moscow from 1835 to 1859. He was also a director of a free polyclinic, editor of a Moscow medical gazette, and a much beloved physician whose name continues familiar in the mouths of the people as a designation for a celebrated stomach or cholera remedy. The formula for this mixture or "drops" is—

Vinous tincture of rhubarb.....	2 ounces.
Tincture of nux vomica.....	3 drams.
Tincture of peppermint.....	3 drams.
Hoffman's anodyne.....	3 drams.
Tincture of opium.....	4 drams.
Tincture of valerian.....	4 drams.
Tincture of Canadian castor.....	4 drams.
Extract of nux vomica.....	5 grains.
Oil of peppermint.....	10 drops.

This looks somewhat like a "shot-gun" formula, but it has survived many years, and seems to have done a little traveling from country to country, too.

Making Compound Elixir of Pepsin, N. F.—D. Archie Bullock, South Carolina, supplementing our reply to F. A. L., Florida (in the CIRCULAR for January, page 29), writes: "I beg to offer the following suggestion: Add your glycerin to the [otherwise] finished product and you have a pretty preparation that has been made very rapidly. We use a good deal of compound elixir of pepsin, and it usually takes about six days to filter it if we make it by the directions in the National Formulary, so we follow those directions except that we add the glycerin after filtration."

Practical notes on every-day pharmaceutical problems are always welcome, and we trust Mr. Bullock will let us hear from him again. It might be well to mention in passing, however, that under some of the State drugs acts changes of method of manufacture are mentioned in the same connection as changes of formula.

Non-Greasy Cold Cream.—F. J. G., Indiana.—In the CIRCULAR for January, 1910, there are over two pages of formulas for modern skin creams. One of these formulas follows:

Skimmed milk.....	1 gallon.
Tartaric acid.....	5 ounces.
Sodium benzoate.....	$\frac{1}{2}$ ounce.
Zinc oxide.....	1 ounce.
Glycerin.....	2 ounces.
Carmine solution.....	enough.
Perfume.....	enough.

Dissolve the acid in a pint of water and add to the warm milk. Strain and wash the coagulum. Rub the zinc oxide with the glycerin till perfectly smooth, and mix with the casein, adding lastly the perfume, color, and preservative.

Liquid Tooth Filling.—H. W., New York.—Doubtless the manufacturers alone could tell you the composition of the preparation to which you refer. The appended formulas repeated from a recent issue of the CIRCULAR represent preparations having a similar use. These preparations are called odontalgic balsams.

I.	
Sandarac	12 parts.
Mastic	5 parts.
Amber	1 part.
Ether	15 parts.

II.	
Mastic	23 parts.
Absolute alcohol.....	33 parts.
Tolu balsam.....	9 parts.

Dissolve the mastic in the alcohol; add the tolu and promote solution with the aid of a gentle heat, shaking occasionally.

Formulas for other temporary and anodyne fillings for teeth are to be found in last month's CIRCULAR, page 83; and in the issues for December and May, 1909, pages 532 and 236, respectively.

Formulas and Reason.—A. Weinstein, New York, favors us with some original observations on the subject of constructing formulas which will doubtless make interesting and helpful reading to many. He begins by quoting a couplet—

That which other folks can do
Why, with reason, may not you?

and then goes on to say:

It is a peculiar and sickly sensation that I sometimes experience when reading the "Notes and Queries" of THE DRUGGISTS CIRCULAR. If I were a son of the rich I should call it "brain storm," but ordinary mortal as I am, living on the sweat of my brow, I can describe it only as an excessive blood supply rushing and distressing my meager three pounds of cerebrum. In a feverish desire for relief the brain signals to my hand to grip the pen and jot down some thoughts to share with the editor who sits in the sanctum sanctorum of that department.

The cause of my mental disturbance is not a new one. It is as old as civilization itself. It is the old-time absurdity of relying upon the brains of other folks to do that which can be done by one's own with the use of reason and common sense. Let it be understood that my object is not to depreciate the useful and valuable information found in the "Notes and Queries," but to call attention to the amount of useful labor that would be spared its editor if the querists would only utilize their reasoning faculty and common sense, especially when seeking a substitute for a successful formula.

Roach Destroyers.

Let us take, for instance, the recent query for a "roach powder formula." I am sure that the one seeking the information has the required knowledge but lacks the habit of thinking how to make an application of it. If he did not he would reason something like this: The object sought is a food which roaches will like to eat, for if they do not like it they will not touch it. From observation in our own kitchen I know that they like flour better than any ordinary article of food; but as the purpose of feeding roaches is not to fatten them but to destroy them, I therefore should mix a poisonous substance with the flour of which they are so fond. Borax being little poisonous to human beings is preferable. Hence, we have, as a formula for an excellent simple and cheap roach powder—

Borax	77 parts.
Flour	33 parts.

Should we desire a liquid for the same purpose we must follow the same line of reasoning. We know that these insects are not fond of liquids, and to destroy them by the use of liquids we must apply one to them that will have a fatal effect. The anatomy of the roach, composed largely of fats, will dissolve in benzine, but this being

very inflammable and its vapors being explosive, it is dangerous to use, so a higher boiling hydrocarbon like kerosene, which is less unsafe for use, should be employed. Hence we have as an excellent and cheaper roach destroyer—

Kerosene	99 parts.
Aromatic oils.....	1 part.

Hair Tonics.

Let us take another recent query, a formula for a successful "hair tonic." Of course, I conscientiously believe that the treatment of any part of the human body should be left to the skillful physician, but as we are living in a practical world and "hair tonics" must be supplied, the preparation should at least be based on some knowledge, plus common sense. We must remember that the hair is not as simple as it looks. It has a shaft above the skin of which it is a modified form, and a root which is lodged in an involution of the epidermis called the hair follicle. The bulb on which the root rests is surrounded by fatty matter which is supplying it with material for its growth. Therefore any strong alkalies or fat solvents must not enter into the composition of a hair tonic, because when frequently applied and absorbed it will decompose the bulb of the follicle. On the contrary, it must contain oily or fatty matter, but as oil and fats are physically objectionable, we must turn to the by-product of oils and fats, glycerin, which has the advantage of being soluble in water. By adding to this a mild antiseptic like resorcinol, which will prevent decomposition of organic matter, and a mild astringent like witchhazel, in the following proportions—

Glycerin	40 parts.
Resorcinol	5 parts.
Hamamelis water.....	55 parts.

we have a simple harmless application for the hair.

Following this style of reasoning any good formula may be composed and if one has the coin to let people know and induce them to try his composition he may be sure to succeed, because, after all, it is the dollar more than the formula that brings the success.

Aqueous Liquids in Capsules.—J. Feldman, New York, seeing the inquiry in the CIRCULAR for last month, page 79, from a reader who wanted to know how best to dispense 5 minims of syrup of iron iodide and 1 minim of Donovan's solution in a capsule, writes: "I have come across that exact prescription many times, and after experimenting finally hit upon the following way to fill it, which has proved to be very good, the gelatin capsules remaining firm until the patient has taken them. Taking that prescription [calling for twenty-four such capsules] as an example, I'd mix about 3 drams of the syrup and 36 minims of the solution in a graduate (both being cheap enough to permit the waste of the extra quantity) and with a dropper place 6 drops of the mixture in a small capsule. This is the way I do it, and I experience no difficulty."

In advising our querist last month we expressed the opinion that the aqueous liquid would dissolve the capsules: as there are twenty-four of them to be taken we should fear to run the risk. But the proof of the pudding is in the eating, and it seems that Mr. Feldman has "got away with it"—not the pudding, but the trick of dispensing the aqueous liquids in gelatin capsules. As the properties of the mixture as well as of the capsules themselves, to say nothing of climatic conditions, are different in different stores, we should like to know what the experience of other druggists has been along this line.

Reciprocity Between Boards of Pharmacy.—W. A. T., Virginia.—A note in the CIRCULAR for January, page 31, answers your query as effectually as if it had been written for that purpose.

Refining Cotton Seed Oil.—G. B. C., Alabama.—This process, like all others carried on in an extensive manner by large interests, is subject to variations in the hands of different concerns, these variations, in the nature of improvements, generally being regarded as trade secrets. Given the general outline of the process, it is for each operator to work out the minutiae to meet the requirements of his own case.

In a general way it may be stated that when cotton seed oil is first pressed from the seed it is allowed to stand for a while, when a slimy precipitate deposits. The clearer portion is then drawn off and treated with a solution of sodium hydroxide of 1.06 to 1.09 specific gravity, and again allowed to stand. If the oil is clarified with fullers' earth and chilled to a temperature of about 50° F., its palmitin and stearin crystallizes and may be removed by pressing.

Just to what extent a retail druggist can compete with large cotton seed works in the matter of refining the oil is a matter for each to decide for himself, but we think it hardly probable that the small concern with such apparatus as is usually found or may easily be installed in a drug store, can do the work as economically as the larger ones.

Solution of Hydrogen Dioxide with "Alkaline Antiseptic."—J. A. B., New Jersey.—Forty-eight hours after it had been compounded, a mixture of equal parts of solution of hydrogen dioxide and alkaline antiseptic solution made by us was practically colorless. The result was the same with a solution of hydrogen dioxide containing acetanilide and with one which was stated not to contain the preservative.

There are, however, "alkaline antiseptics" colored by digesting cudbear in the solution. It may be that with these the decolorization process would proceed more slowly; it is a fact that the color of solutions made in this manner is naturally more permanent. The color of the proprietary preparation supposedly similar to "alkaline antiseptic" we found was not so rapidly discharged by the solution of hydrogen dioxide.

Why solution of hydrogen dioxide should be prescribed in an alkaline mixture is a mystery to us; no, perhaps it is not such a great mystery after all, but is the simple, logical result of the limited knowledge of incompatibilities possessed by the average physician.

Creo-Terpin.—T. A. C., Massachusetts.—Our knowledge of the composition and compounding of this preparation is limited to an acquaintance with the statement made on the label that each ounce contains—

Alcohol	25 per cent.
Heroine hydrochloride.....	⅓ grain.
Creosote	4 minims.
Terpin hydrate.....	4 grains.
Calcium glycerophosphate.....	4 grains.
Sodium glycerophosphate.....	4 grains.

There do not appear to us to be any insurmountable pharmaceutical difficulties in making a presentable solution of the given medicaments in a medium containing the stated proportion of alcohol and, say, 40 per cent. of glycerin. Such mixtures, however, are intended for dispensing as physicians' prescriptions.

Shaving Cream.—A. P., New York, has tried some of the formulas for shaving creams that have recently appeared in the CIRCULAR, and does not like them. Whether the fault lies in the formulas, or whether our querist did not use the right grade of material or the proper manipulation, we can not say and do not propose to discuss: he wants other formulas, and as it is our constant endeavor to please, we have gone to sources outside of the CIRCULAR for those we present below, and hope that one of them, or a variation of it to be suggested by experience after manipulation, will prove satisfactory. In the meantime we hold ourselves in readiness to assist further any of our readers who are unable to get satisfactory results by the use of these or any other formulas which we may publish:

This, from Pharmaceutical Formulas, is for a lanolinated shaving cream:

Lanolin	½ ounce.
Almond cream.....	10 ounces.
Rose water.....	4 ounces.
Coumarin	2 grains.
Oil of ylang-ylang.....	10 minims.

Put the lanolin in a warm mortar and mix the almond cream with it, occasionally adding some rose water. When thoroughly mixed, add the perfumes, and triturate off and on for several hours, so as to get a nice appearance.

By almond cream is meant a preparation to be found on the market, sometimes spoken of as Naples soap.

According to the *National Druggist*, the following process for the manufacture of shaving creams was published in the *Seifensiederzeitung* some time ago:

As raw materials in the production of this class of toilet articles are used lard, olive or sesame oil, and Cochin coconut oil. Before proceeding with the manufacture one must be sure that the fats and oils are perfectly fresh and clean. If this is not the case they must undergo a process of refining. This consists in carefully boiling the substance in clean kettles, together with water, to which some cooking salt has been added. The fats thus purified are strained, and are ready for immediate use. A good formula is as follows:

Lard	20 parts.
Olive (or sesame) oil.....	16 parts.
Cochin coconut oil.....	14 parts.

Stir together at a temperature of 35°C. (95°F.) and add, in a thin stream, 25 parts of caustic potash lye of 40°B. and 3 parts of a potash solution of 150°B., with constant stirring. Maintain the agitation until the mixture saponifies and becomes thick and tenacious. As a perfume, use for every 25 kilograms of fats the following:

Lavender oil.....	100 grammes.
Lemon oil.....	50 grammes.
Spike oil.....	50 grammes.
Thyme oil.....	50 grammes.

These oils are stirred in at the last. For containers use little porcelain jars. Keep the preparation in a cool place.

In looking for formulas for use in answering similar questions, some of the pharmaceutical journals, respectively, have found formulas which are produced herewith:

I.

From *Merck's Report*:

Curd soap.....	8 ounces.
Expressed oil of almond.....	2 ounces.
Glycerin	1 ounce.
Spermaceti	1/2 ounce.
Potassium carbonate.....	1/4 ounce.
Water	1 pint.

Cut the soap into shreds, and dissolve it by the aid of a water-bath in 14 ounces of water. Dissolve the spermaceti in the almond oil, and while warm mix it with the glycerin, potassium carbonate, and remainder of the water. Transfer to a warm mortar, gradually incorporate the warm soap solution, and continue the stirring until a smooth paste is obtained. With this incorporate any suitable perfume.

II.

From the *Western Druggist*:

Lard	14 ounces.
Potassium hydroxide.....	2 ounces.
Water	6 ounces.
Perfume	to suit.

Melt the lard in a porcelain vessel over a salt water bath; dissolve the potassium hydroxide in the water, and run the lye, thus formed, very slowly into the melted grease, stirring thoroughly all the time until saponification is complete.

A pearly appearance can be given to the "cream," which is simply a soft soap, by long trituration in a mortar with a little alcohol, say 2 drams to each pound of the soap.

Bitter almond oil may be used as a perfume for the "cream." Only a very minute proportion is required. A few drops dissolved in the alcohol used as above will suffice.

III.

From the *American Druggist*:

Hard paraffin (m.-p. 55° C.).....	22 parts.
Prepared suet.....	3 parts.
Soft soap.....	2 parts.
Boiling water.....	68 parts.

Place these materials in a vessel surrounded by boiling water, and when the fats are melted beat them together until a smooth, white emulsion is obtained. Continue the beating, maintaining the temperature above 70° C., and shake in gradually—

Tragacanth, in powder..... 2 parts.

When the mixture is homogeneous allow it to cool by removing the boiling water, and when nearly cold add

Glycerin	2 parts.
Oil of lavender.....	1 part.

The parts are taken by weight.

IV.

This formula, from the *Pharmaceutical Era*, is for a non-lathering shaving cream:

Cacao butter.....	1/2 ounce.
Almond oil.....	1/2 ounce.
Glycerin	1 ounce.
Primrose soap [?].	1/2 ounce.
Otto of rose.....	4 minims.
Oil of neroli.....	4 minims.
Oil of bitter almond.....	5 minims.
Distilled water.....	enough.

Melt the cacao butter and almond oil and pour into

a warm mortar containing the soap previously rubbed down with 3 ounces of boiling water; stir briskly to make a uniform cream, slowly adding 4 ounces of warm water previously mixed with the glycerin; finally add the perfumes.

With 4 ounces of rose water and no glycerin, this gives a cream suitable for potting.

V.

From the *Practical Druggist*:

Castile soap	1 ounce.
Water	4 ounces.
Oil of almonds.....	1/2 ounce.
Cacao butter.....	1/2 ounce.
Tincture of benzoin.....	1 dram.
Oil of bitter almond.....	5 drops.
Oil of rose geranium.....	5 drops.
Glycerin.....	enough to form a paste.

Digest the soap and water in a water bath, add to them the oil of almonds and the cacao butter, previously melted, and while the mixture is still warm, incorporate with it the other ingredients.

Directions on a Malt Prescription.—L. B., Québec, received a prescription for a dozen bottles of a proprietary malt extract, the directions on which were "1/3 bottle at each meal," and is in doubt as to whether so to label each bottle, or simply to place the directions on the case containing the dozen bottles. He seeks advice.

The function of directions is to direct, to the end that the one directed may proceed aright. If this end is accomplished by labeling the case, well and good; if not, then each bottle should be labeled. The dispenser is in a better position than we are to decide this question as it may arise in each case, but as a rule we should say that one label would suffice for the whole dozen.

It may be, however, that a question of excise is involved, in which case we advise an excess rather than a deficiency of caution.

To Prevent "Misting" of Eye-Glasses.—W. H., New York.—We have been unable to get any information regarding the preparation you name; and we suspect that you have not given the name right. For the purpose you have in view we should suggest the following mixture:

Potassium oleate.....	2 ounces.
Glycerin	1 ounce.
Oil of spike lavender.....	1 dram.

Beat the oleate into a paste with the glycerin, and incorporate the oil.

If sodium oleate be used a stiffer product results. A less satisfactory preparation is made by incorporating a little glycerin in some of the popular transparent glycerin toilet soaps.

Peterman's Discovery.—T. M., New Hampshire.—We have no knowledge of the composition of this bug killer, but we opine that kerosene having a specific gravity of between 0.800 and 0.810, perfumed with a little oil of sassafras, will approximate the physical characteristics of the preparation—and kerosene, sometimes colored with alkanet, is a bug killer of long-standing renown.

Making Bay Rum.—J. Feldman, New York, acting on our suggestion that those who tried Mr. Scott's formula for bay rum (in the CIRCULAR for last month, page 82) report results to us, writes:

I made up a small quantity of bay rum according to the formula of Mr. Scott. The finished product is very nice in appearance and odor, and looks very much like the distilled kind, but has a different feeling and after effect on the face. I also tried some on my hair, with good effect.

I have always made my bay rum according to the directions in the Pharmacopœia of 1870, and added a few drops of ammonia water to the unfiltered product, and I get a nice yellowish-green product, and with a neat green-and-gold label it sells fine.

We thank Mr. Feldman and should be glad to hear from him again, and from others on this or any other topic of interest to pharmacy.

Paste Shoe Dressing.—W. H. G., Massachusetts.—Perhaps the following formula will aid you in making the kind of dressing you wish:

Soap	12 parts.
Potassium carbonate.....	6 parts.
Beeswax	50 parts.
Water	200 parts.
Bone-black	100 parts.
Powdered sugar.....	15 parts.
Powdered acacia.....	6 parts.

Mix the soap, potassium carbonate, wax and water, and boil together until a smooth paste is obtained; then add the other ingredients, mix thoroughly, remove from the source of heat, and while hot pour into boxes.

Pills of Creosote and Balsam of Tolu.—José Schwarz, New York, referring to the discussion on the making of these pills, which took place at a recent meeting of the Brooklyn Pharmaceutical Association and was reported in the CIRCULAR for last month, pages 111 and 112, writes:

Just mix equal parts of distilled water and creosote and add powdered balsam of tolu, and see what a fine pill mass you can obtain without the addition of beeswax or any other substance. It is worth trying.

We thank Mr. Schwarz for his note and hope he will continue to bear us in mind whenever he has anything of interest to pharmacy to communicate. We are always glad to hear from our readers..

Lime Water.—Howard G. Snyder, Pennsylvania, commenting on the lime water note in the CIRCULAR for January, page 22, writes that in the store in which he works no lime water is dispensed that is not of the official strength. When first made the lime water is filtered into pint bottles, which sell for 10 cents each, with a rebate of 5 cents for the empty bottle. He says that it should not be dispensed in a larger quantity than 1 pint.

We are always pleased to receive notes of this kind from our readers and hope that many of them will follow Mr. Snyder's example and send us practical points for publication.

Fluid For Coloring Flowers Green.—H. E. D., New Hampshire.—When you wrote, the February number of the CIRCULAR probably had not reached you; a note on this subject appears on page 85 thereof.

Pilocarpine as a Hair Tonic.—H. N. B., New York, writes: "Is the expensive and largely prescribed alkaloid pilocarpine of the slightest value as an ingredient of 'hair tonics'? It is neither a capillary irritant, like cantharides, nor an antiseptic, like resorcinol or beta-naphthol. Does its cost act as a mental (and cranial) stimulant?"

This brings up an old subject which has been touched upon at greater or less length in the CIRCULAR at intervals for many years. In the issue for August, 1879, page 141, is a note in which it is stated that Dr. Schmitz, in a Berlin Medical journal, had said that in two instances he had observed the reproduction of hair on the heads of bald patients to whom he had administered "muriate of pilocarpia" for diseases of the eyes. One patient was a man of sixty years, to whom three hypodermic injections of the salt had been administered in fourteen days, at the end of which time, the head of the patient, which had been entirely bald, was noticed to be covered with a thick down which grew into an abundant crop of hair. In the other case the patient, aged thirty-two, had a bald spot as large as an ordinary playing card. Two injections of pilocarpine for eye trouble left this spot well covered with hair.

In the CIRCULAR for March, 1881, page 39, is a short review of the then recent literature of pilocarpine, in which Prof. Pick, of Prague, is quoted as having observed the remarkable effect of the drug on the hair. We quote: "It hastens recovery of alopecia areata, and acts even more favorably on seborrhea; indeed, in most cases he says that continued use of pilocarpine exerted an important influence on the oiliness of the hair and on its growth. The skin becomes softer, more pliant and satiny; comedones and papules of lichen planus can be more easily pressed out or got rid of, the scurfiness of the scalp becomes less or disappears, the hair is less brittle, the new growth of lanugo hairs changes more rapidly into dense, properly pigmented ones. Under employment of the drug for months the general condition of the patient was not impaired; indeed, the appetite improved, and he was better nourished." This remarkable testimonial had been published in *Vierteiljahrsschrift für Dermatologie*, i, 1880. It reads as if the professor who wrote it had been intoxicated by the exuberance of his own enthusiasm.

This enthusiasm seems to have been of an infectious nature, as in an answer to a query in the CIRCULAR for October, 1883, page 153, we read: "At the same time, after a number of doses [of pilocarpine] he will have the satisfaction to see his hair growing thicker and darker; and if he perseveres long enough, should nothing happen, he may succeed in obtaining a good head of black hair. In some cases the eyes also turn dark."

In the CIRCULAR for April, 1884, page 57, is a note clipped from the *Buffalo Medical Journal* to the effect that Dr. Pohlman had found that pilocarpine darkened hair in the presence of pigmentary matter, but not when such matter was absent.

More conservative in tone is a note in the CIRCULAR for March, 1892, page 62, in which pharmacists are warned that experiments with so potent a drug as pilocarpine should be left in the hands of physicians. An even more conservative statement appears in the issue for November, 1894, in answer to a querist.

We believe the latest reference to the subject in the

CIRCULAR appears in the issue for September, 1904, page 208, but in the Standard Dispensatory, issued in 1909, the therapeutic editor of which is Dr. Hobart A. Hare, professor of therapeutics and materia medica in the Jefferson Medical College of Philadelphia, we read under "Pilocarpine": "This drug also acts as a powerful stimulant to the growth of the hair, whether it be applied to the scalp or taken internally, and the new growth is often very dark in hue."

Dr. Torald Sollman, in his Text-Book on Pharmacology (1906), commenting on the increased action of the sweat glands caused by pilocarpine, says that this action "brings with it an increased circulation in the skin, and this secondarily increases the growth of the hair, and, it is claimed, also turns it to a darker color."

Notwithstanding all this testimony, however, we are of the opinion that one author has copied from another, or that all have copied from the same reports of a few isolated cases in which the value of the pilocarpine was not fully established; for, if it were so easy for men and women who are bald and gray, to grow a full suit of dark hair, why do we see thousands of them around us supporting hundreds of "hair tonic" fakers when they are so able to employ a physician to give them a few hypodermic injections of the drug that would do the trick, and would be so willing if the doctor would only encourage them?

We repeat a former warning, that pilocarpine is a dangerous drug, and experiments with its use should be confined to medical men thoroughly qualified to make them.

Father John's Medicine.—John W. Bachelder, New York, seeing the note in the CIRCULAR for last month, page 85, writes: "Father John's medicine is a preparation similar to Dr. Heinman's prescription, which he used to write many years ago in Boston, Mass. I do not remember the exact prescription, but it called for cod liver oil, powdered extract of licorice, confection of almond, essence of peppermint, and compound spirit of lavender. I think most of the old druggists in Boston have the prescription on file."

We thank Mr. Bachelder for his note, and hope he will let us hear from him again. It looks as if he "put it up to" those old Boston druggists, and we look for some of them to "rise to the occasion."

To Render Kerosene Uninflammable.—E. C. W., New York.—Carbon tetrachloride added to kerosene renders it less combustible, and the greater the proportion of the former the less easily the combination will burn. A mixture of equal volumes of the two liquids is said to make a fluid that will not ignite at any temperature to which such a preparation would ordinarily be exposed.

Anonymous Queries.—"Constant Reader," New York.—Your attention is called to the standing notice at the head of this department in which it is stated that queries, to be answered by us, must be accompanied with the name and address of the writer. Not only do we keep that notice standing, but almost every month we print a note similar to this one, calling special attention to it; and now and then we give our reasons for having made such a rule.

Appeals to Readers.—Information is sought concerning the articles listed below. We ask for such help as our readers can give:

Albucol; where may it be obtained.—E. M. C., Missouri.

Orange Manna.—C. W., Colorado.

Mitchell's Magic Lotion.—F. G., California.

Woofster's Corn Remedy.—J. L. C., Massachusetts.

Caementium.—E. J. C., Michigan.

Booth's Mi-o-na.—E. J. C., Michigan.

Pazo Ointment.—E. J. C., Michigan.

Ferruginous Cod Liver Oil.

The use of iron soaps in combination with cod liver oil has been widely suggested in Europe as a means of exhibiting iron and an easily digested fat in one preparation. Feist and Auerhammer have offered the following formula for such a preparation:

Solution of ferric chloride.....	100 grammes.
Alcohol	30 grammes.
Ether	250 grammes.
Linseed oil.....	140 grammes.
Solution of potassium hydroxide (25%).....	107 grammes.
Cod liver oil... enough to make	1,000 grammes.
Distilled water.....	enough.
Dried sodium sulphate.....	enough.

Prepare a potash soap of the linseed oil, using the alcohol and a sufficient quantity of distilled water [similarly to the U. S. P. method for making soft soap]. Dissolve this soap in 1500 grammes of distilled water; to this add the solution of ferric chloride diluted with 500 grammes of distilled water. Set this mixture aside for an hour, collect the precipitate, and dissolve it in the ether. Shake this solution with some dried sodium sulphate, decant, distill off the ether, and dissolve the iron soap in the cod liver oil.

Phenolphthalein Laxative Syrup.

The following formula is offered by a correspondent of the *Journal of the American Medical Association*:

Phenolphthalein	128 grains.
Salicylic acid.....	10 grains.
Bitter cake chocolate.....	1 ounce.
Syrup of acacia... enough to make	1 pint.

Melt the chocolate and mix with the syrup; then add the acid and the phenolphthalein.

This mixture requires a "shake" label.

A French Corn Cure.

Salicylic acid.....	10 grammes.
Lactic acid.....	10 grammes.
Chloral hydrate.....	10 grammes.
Castor oil.....	1 gramme.
Venice turpentine.....	1 gramme.
Extract of cannabis indica.....	2 grammes.
Collodion	100 grammes.

Nail Tinter.

Powdered stannic acid.....	20.0 grammes.
Sandarac resin.....	1.0 grammes.
Kaolin	4.0 grammes.
Carmine	0.2 gramme.
Extract of violet.....	5 drops.
Extract of ylang-ylang.....	10 drops.

Some Questions in Drug Store Mathematics.

Here are a few questions which may interest the drug clerk who wants to keep his knowledge of arithmetic bright until such time as he is ready to "go before the board." We should be glad to receive answers to these questions, and also to have clerks contribute questions for use under this head.

1. If a druggist pays \$110,000 a year rent for his store (as it is reported that one is to do in this city); employs 30 clerks at an average wage of \$15.75 a week; and his average gross profit amounts to one-third of his sales; how much must each clerk's average daily sales be to make the profit on the business equal the two items mentioned, taking no account of other expenses? How much would each clerk's average daily sales have to be if there were 40 clerks?

2. A discount of 10 and 5 and 2 per cent. is a discount of what per cent.?

3. What fraction of a grain of strychnine is in the average dose (1 dram) of elixir of iron, quinine and strychnine phosphates?

4. A lump of crude opium weighing $12\frac{1}{2}$ pounds contains $7\frac{1}{2}$ per cent. of morphine. It is dried until it loses 2 pounds of its weight. What percentage of morphine does it then contain?

5. An empty can weighs 1 pound. Filled with distilled water it weighs, with its contents, 11 pounds. How much would it weigh, with its contents, if filled with alcohol?

6. If ice cream, fruit syrup, and carbonated water cost 80 cents, 70 cents, and 5 cents a gallon, respectively; and 2, $2\frac{1}{2}$, and $8\frac{1}{2}$ ounces, respectively, are used in making a glass of soda water, what is the profit on 100 gallons of the product, at 10 cents a glass?

7. Having a 1-in-100 stock solution on hand, and desiring to make 8 ounces of a 1-in-2500 solution by diluting this with water, how much of each should be used?

8. Having a sample assaying 7 per cent. and another assaying $2\frac{1}{2}$ per cent., how much of each should be taken to make the official quantity of tincture of cinchona?

9. When 4 grains of cocaine hydrochloride are dissolved in 1 ounce of distilled water, what is the percentage strength of the solution?

10. Desiring to make 1 fluid ounce (say 455 grains) of a 4 per cent. solution of cocaine hydrochloride in distilled water, how many grains of each should be used?

Answers to January Questions.

1. 20 60/97.
2. 1 gallon.
3. $18\frac{1}{8}$ cents.
4. 10 grains.
5. $3/16$ grain.
6. 36 and not quite $\frac{1}{2}$.
7. $2\frac{1}{2}$ cents.

8. 76.8 minims. (In working percentage of this kind we must have all parts by weight or all parts by volume. As the weight of the elixir is not given, it is necessary to give the answer in volume.)

9. 3 ounces, 5 ounces, 4 ounces.
10. 60.

A Baffling Problem.

"Prescription Clerk," Indiana, writes that he can not figure out the first problem in the November issue, and asks for help. The example reads:

A bottle filled with glycerin weighed, with its contents, 22 ounces avoirdupois; filled with alcohol it weighed 15 ounces. What is the capacity of the bottle in fluid ounces?

First ascertain the difference (preferably in grains) between the weight of the glycerin and the weight of the alcohol. In the Pharmacopœia find the specific gravity of the two liquids, and the weight of 1 fluid ounce of a liquid whose specific gravity is 1, from which data the weight of 1 fluid ounce of each of the other two liquids may be learned. Ascertain the difference between the weights of this given quantity of these two liquids, and then apply the rule of three.

New York Board Questions.

Herewith are reprinted the first set of questions used by the new New York Board of Pharmacy appointed by the regents under the law passed last year. The examination was held February 1st and 2d. Other sets of questions asked by the New York board appear in the issues of the CIRCULAR for October, 1910, page 519; December, 1909, page 642; January, 1909, page 28; January, 1908, page 30; March, 1907, page 274; April, 1906, page 138; January, 1905, page 21; July, 1904, page 157; and some previous ones.

In reprinting board questions we endeavor to follow closely the nomenclature, spelling, punctuation and capitalization of the originals, our object being to give our readers, just as nearly as practicable, the questions as they were presented to the candidates.

Pharmacist Examination.

Theoretical Pharmacy.

Answer the first six questions and any four of the others.

1. Change the following and show calculations: (a) 60° C. into F., (b) 70° F. into C.

2. Write in Latin and in English the meaning of *each* of the following abbreviations: (a) d. t. d., (b) ft. inf., (c) div. in p. aeq.

3. Give the titles of books that are standards for drugs and medicines in the United States.

4. State how *each* of the following is prepared: (a) mercurial ointment, (b) ointment of potassium iodid.

5. Give the per cent. of the active constituent in (a) Dover's powder, (b) nux vomica, (c) opium.

6. State how *each* of the following U. S. P. products is prepared: (a) rose water, (b) Fowler's solution, (c) syrup of squill.

7. How may the boiling point of a liquid be determined?

8. Define *each* of the following terms and give an official product of each process: (a) evaporation, (b) desiccation, (c) percolation.

9. Name *three* substances used to clarify liquids and state when they should not be used.

10. Medicated waters. State the pharmacopœial titles and the English names. Name (a) *two* that are gaseous solutions, (b) *four* prepared by distillation.

11. Name (a) *five* U. S. P. flavoring syrups, (b) *five* U. S. P. medicated syrups.

12. Give details of the official method of preparing elixir of iron, quinin and strychnin phosphate.

13. Name the ingredients in *each* of the following preparations: (a) paregoric, (b) tincture of iodine, (c) tincture of aloes.

14. Give the method of preparing *two* U. S. P. glycerites.

15. Describe the U. S. P. assay process for jalap.

Practical Pharmacy.

On completion of the work all apparatus must be cleaned; otherwise two credits will be deducted from the rating of the practical work.

Compound the Following:

1. R	Acidi Salicylici.....	8.0
	Natrii Bicarb.....	5.8
	Glycerini	20.0
	Aquae q. s. ad.....	60.0

M. s. a.

Sig. One teaspoonful four times a day in water.

2. R	Phenolis Salicylatis.....	0.3
	Olei Ricini āā.....	no. viii.

M. ft. caps. d. t. d.

3. R	Acidi Tannici.....	1.0
	Opil pulv.....	0.2
	Olei Theobrom. q. s.....	

M. ft. suppos. no. vi.

Sig. As directed.

Manufacture the following:

1. Basham's mixture.....	250.00
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[See U. S. P. page 262.]

2. Emulsion of asafetida.....	100.00
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[See U. S. P. page 128.]

Test the Following:

1. Borax, for presence of carbonate or bicarbonate.

[See U. S. P. page 399.]

2. Cream of tartar, for presence of starch or other insoluble matter.

[See U. S. P. page 356.]

Pharmaceutical Chemistry.

Answer the first six questions and any four of the others.

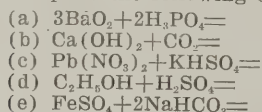
1. Spirit of glyceryl trinitrate. What per cent. of the active constituent should it contain? What precautions must be observed when a considerable quantity is spilled?
2. Glycerite of boroglycerin. How is it prepared? What happens when water is added to it?

3. Write the chemical formula for *each* of the following: (a) calcium carbonate, (b) cream of tartar, (c) sulfurous acid, (d) protoiodid of mercury, (e) Glauber's salt.

4. Define the following terms: (a) valence, (b) isomeric, (c) triatomic, (d) alloy, (e) calcination.

5. Give the chemical name of *each* of the following: (a) C_2H_5OH , (b) $HgNH_2Cl$, (c) $H_2C_6H_2O_7$, (d) KPH_2O_2 , (e) $Na_2P_2O_7$.

6. Complete the following equations:



7. Hamamelis water. Give the official method of preparation. How may the presence of formaldehyd be detected?

8. Citric acid. Give its source. State how it may be distinguished from tartaric acid by chemical means.

9. Give a characteristic test for *each* of the following: (a) ammonium chlorid, (b) lithium iodid.

10. How many grammes of official hydrochloric acid will be required to make 1595 grammes of official diluted hydrochloric acid?

11. How many grammes of metallic zinc may theoretically be obtained from 1 kilo of zinc acetate? [Atomic weight of H = 1, of O = 15.88, of C = 11.91, of Zn = 64.9.]

12. Write the reaction that takes place in the manufacture of official sulfurous acid.

13. State the color imparted to a nonluminous flame by *each* of the following: (a) calcium, (b) barium, (c) sodium, (d) potassium, (e) strontium.

14. Give details of the process for the manufacture of an effervescent salt.

15. Why are many samples of mercurous iodid green instead of yellow? What precaution should be taken to prevent this change in color?

Materia Medica and Botany.

Answer the first six questions and any four of the others.

1. Roman and German chamomile flowers. Give (a) the official title of each, (b) a description of each, (c) the principal constituent of each.

2. Give the U. S. P. requirements for nux vomica. Name another drug having the same active constituents as nux vomica.

3. Define (a) sialagogue, (b) alterative, (c) masticatory, (d) aperient, (e) expectorant.

4. Coca, cacao, coccus. Define each and give the uses or the properties of each.

5. Define embryo. State the different kinds of embryo. Give the class of plants produced from each kind of embryo.

6. Define (a) close fertilization, (b) cross fertilization, (c) hybridization.

7. Colocynth. Give (a) its synonym, (b) its principal constituent, (c) its medicinal properties, (d) the U. S. P. dose.

8. Give the essential characteristics of (a) anise, (b) conium. State the active constituent of each.

9. Strophanthus. Give (a) its botanic origin, (b) its active constituent, (c) the dose of the constituent and of the crude drug, (d), its medicinal properties.

10. Senna. Give (a) the U. S. P. requirements for senna, (b) the commercial terms used.

11. Colchicum. Give (a) the official parts of the plant, stating the dose of each part, (b) its medicinal properties, (c) a description of the seed.

12. Podophyllum. Give (a) *two* synonyms, (b) its principal constituent, (c) the dose of the crude drug and of its constituent.

13. Senega. Give (a) its botanic origin, (b) the habitat of the plant, (c) its active constituent, (d) the U. S. P. dose.

14. Gentian. Give (a) its botanic origin, (b) the habitat of the plant, (c) its medicinal properties, (d) the U. S. P. dose.

15. Define (a) monocious plant, (b) diecious plant.

Toxicology and Posology.

Answer the first six questions and any four of the others.

- In stating the dose of a drug write the name of the drug and unless otherwise specified, state the minimum and the maximum dose.

1. Define the following terms: (a) maximum dose, (b) antidote, (c) true poison, (d) cumulative poison, (e) idiosyncrasy.

2. Name a chemical antidote for *each* of the following: (a) iodine, (b) chloral hydrate, (c) corrosive sublimate, (d) phenol, (e) salt of sorrel.

3. Give an emergency treatment for poisoning by *each* of the following: (a) creosote, (b) arsenic.

4. Mention a physiologic antidote for *each* of the following: (a) veratrum viride, (b) stramonium, (c) cocaine, (d) strophanthus, (e) gelsemium.

5. State the dose of (a) tincture of aconite, (b) san-tonin, (c) Griffith's mixture, (d) morphin sulfate, (e) Fowler's solution.

6. State the dose of (a) salicylic acid, (b) extract of colocynth, (c) spartein sulfate, (d) vinegar of opium, (e) saccharated carbonate of iron.

7. What precautions must be taken when selling schedule B poisons? Name five substances listed in this schedule.

8. Give an emergency treatment for poisoning by *each* of the following: (a) oxalic acid, (b) alcohol.

9. Give a chemical test for the detection of *each* of the following: (a) white precipitate, (b) strychnin.

10. In poisoning by alkaloids what organic acid may be employed as an antidote? How does this acid act?

11. Name *five* narcotic poisons, stating the poisonous dose of each.

12. The adult dose of a drug is 24 grains; state, in the metric system, the dose for (a) a child 5 years old, (b) a child 8 years old.

13. How much strychnin is contained in 30 grains of citrate of iron and strychnin? Would this be a safe dose?

14. State the dose of (a) cerium oxalate, (b) sodium chlorate, (c) syrup of hydriodic acid, (d) tincture of hydrastis, (e) wine of antimony.

15. Name *two* poisonous substances for which the stomach tube should not be employed. Give a reason why it should not be used.

Druggist Examination.

Theoretical Pharmacy.

Answer the first six questions and any four of the others.

1. Convert the following into metric equivalents: 3 i, gr. ii, ʒ ss. Convert the following into Troy equivalents: 2.50 grammes, 14 milligrammes.

2. Give the name of an official preparation made by *each* of the following processes: (a) calcination, (b) fusion, (c) infusion, (d) distillation, (e) decoction.

3. Give the common name of *each* of the following: (a) phenol, (b) tinctura capsici, (c) liquor plumbi subacetatis, (d) syrupus scillae compositus, (e) tinctura opii.

4. Name *five* solid pill excipients.

5. Name *five* official tinctures that are made by the process of maceration.

6. Criticise the following prescriptions:

- (a) R Lead Acetate..... ʒi
 Tincture of Opium..... ʒ ii
 Water enough to make..... ʒ vi

Mix.

- (b) R Spirit of Nitrous Ether..... ʒ ii
 Antipyrin ʒ ss
 Syrup ʒ ss
 Water enough to make..... ʒ ii

Mix.

7. Define the term liniment. Name *five* official liniments.

8. What is the difference between Labarraque's solution and Javelle water? Which of these preparations is official in the U. S. P.?

9. Name *five* official tinctures in which official alcohol is employed as a solvent.

10. Name a good solvent for *each* of the following: (a) camphor, (b) potassium iodid, (c) sulfur, (d) menthol, (e) quinin sulfate.

11. Lead acetate when dissolved in water usually yields a turbid solution; why does the solution become turbid? What can be done to obtain a clear solution?

12. How many pounds of official ammonia water can be obtained from 100 pounds of stronger water of ammonia?

13. Give the per cent. of the active constituent contained in each of the following: (a) tincture of digitalis, (b) wine of opium, (c) emulsion of codliver oil, (d) solution of hydrogen dioxid, (e) infusion of digitalis.

14. How does a fluidextract differ from a tincture?

15. State how to determine the specific gravity of a substance lighter than water but insoluble in water.

Practical Pharmacy.

On completion of the work all apparatus must be cleaned; otherwise two credits will be deducted from the rating of the practical work.

Compound the Following:

1. R Strychninae Sulph..... gr. 1/30
Acidi Arseni..... gr. 1/60
Ferri Reducti..... gr. 1
Ext. Gentianae q. s.
M. ft. pill d. t. d. no. xxx
Sig. Unam t. i. d.

2. R Quininae Sulph..... 1.0
Acidi Sulph. q. s.
Syrupi..... 30.0
Aquaе q. s ad..... 60.0

M.

Sig. Teaspoonful every two hours.

Prepare the Following:

1. Tr. Ferri Chloridi..... 50.0
[See U. S. P. page 464.]
2. Ung. Hydrarg. oxid. rubri..... 10.0
[See U. S. P. page 494.]

Pharmaceutical Chemistry.

Answer the first six questions and any four of the others.

1. Spirit of camphor. What strength is required in the U. S. P.? What happens when water is added to it?

2. Aromatic syrup of rhubarb. What kind of rhubarb is used in its preparation? What alkaline salt is used in its preparation and for what purpose?

3. Tincture of iodine. Should it be prepared in large or in small quantities? Give reasons for answer.

4. Solution of magnesium citrate. Name the ingredients used in making this solution. What reaction occurs when potassium bicarbonate is added?

5. Yellow wash. How is it prepared?

6. Give the official name of *each* of the following: (a) copperas, (b) Rochelle salt, (c) cream of tartar, (d) green vitriol.

7. Define the following: (a) maceration, (b) univalent element, (c) inorganic chemistry, (d) base.

8. Define the following: (a) calcination, (b) incineration, (c) atom, (d) crystal.

9. Write the chemical name of *each* of the following: (a) white lead, (b) blue vitriol, (c) white vitriol, (d) salt-peter.

10. Syrup of hypophosphites. What ingredients enter into its preparation? Why is diluted hypophosphorous acid used in its preparation?

11. Name the boiling and freezing points on the centigrade and on the Fahrenheit thermometer.

12. Wine of antimony. Name its constituents. Which is its active constituent?

13. If calomel is mixed with lime water what is the mixture called? Describe the reaction.

14. Give the chemical name of *each* of the following: (a) H_2SO_4 , (b) KNO_3 , (c) HI.

15. Complete the following equation: $CaO + H_2O =$

Materia Medica and Botany.

Answer the first six questions and any four of the others.

1. Define (a) botany, (b) materia medica.

2. What is meant by (a) tuber, (b) seed, (c) radix, (d) pollen, (e) petal?

3. Define the following terms: (a) anodyne, (b) styp-tic, (c) hydragogue, (d) hypnotic, (e) astringent.]

4. Differentiate fixed oils and volatile oils. Give an example of each.

5. *Prunus virginiana*. Give (a) the common name, (b) the part used, (c) its valuable constituent, (d) its official preparations.

6. Give the official name of *each* of the following synonyms: (a) gray powder, (b) carron oil, (c) spirit of mindererus, (d) Basham's mixture, (e) Fowler's solution.

7. Name (a) *four* official products derived from the sheep, (b) an official insect that infests the cactus tree.

8. From what is *each* of the following obtained: (a) iodine, (b) salol, (c) atropin, (d) thymol, (e) santalin?

9. Name the active principles of *each* of the following: (a) aconite, (b) Calabar bean, (c) digitalis, (d) colocynth, (e) hyoscyamus.

10. Give the official part of *each* of the following: (a) glycyrrhiza, (b) gentian, (c) quassia, (d) macis, (e) lobelia.

11. Give the common name of *each* of the following: (a) hedeoma, (b) lactucarium, (c) marrubium, (d) mentha piperita, (e) saccharum.

12. Name *four* official mineral acids.

13. Give the pharmacopœial titles of *five* official leaves.

14. Give the source of *each* of the following: (a) pepsin, (b) spermaceti, (c) oleum morrhuae, (d) cantharis, (e) coccus.

15. Give the source of *each* of the following acids: (a) citric, (b) tannic, (c) oleic, (d) oxalic, (e) tartaric.

Toxicology and Posology.

Answer the first six questions and any four of the others.

In stating the dose of a drug write the name of the drug and unless otherwise specified, state the minimum and the maximum dose.

1. Define (a) toxicology, (b) posology, (c) poison.

2. What is the dose of (a) menthol, (b) pancreatin, (c) extract of henbane, (d) tincture of digitalis?

3. What is the dose of (a) acetanilid, (b) calcium chlorid, (c) camphor, (d) reduced iron?

4. What is the dose of (a) cocain, (b) codein sulfate, (c) bismuth subgallate, (d) ammonium chlorid?

5. Give an emergency treatment for poisoning by (a) oxalic acid, (b) Paris green.

6. How many grains of cocain are required to make 4 ounces of a 4% solution.

7. Define chemical antidote.

8. What is the dose of (a) tincture of belladonna leaves, (b) fluidextract of quassia, (c) diluted hydrochloric acid, (d) hive syrup?

9. What is the dose of (a) potassium nitrate, (b) salol, (c) terpin hydrate, (d) sodium bicarbonate?

10. Define (a) demulcent, (b) cumulative poison.

11. What is the dose of (a) tincture of cantharides, (b) fluidextract of ipecac, (c) aromatic sulfuric acid, (d) syrup of lactucarium?

12. What is the dose of (a) phenol, (b) tincture of cinchona, (c) croton oil, (d) spirit of anise?

13. State the symptoms of poisoning by phosphorus. Name the antidote for phosphorus.

What treatment should be employed in poisoning by concentrated lye?

15. What is the best antidote for poisoning by corrosive sublimate? How is this antidote used?

Solution of Iodine for Skin Sterilization.

Delangre (*Presse méd.* through *N. Y. Med. Journ.*) suggested to the 1910 Congress of the Association Française de Chirurgie the following formula for a stable solution of iodine which, he claimed, applied thrice, renders the skin perfectly sterile, without exerting any caustic action:

Iodine 45 grains.

Sodium borate..... 45 grains.

Alcohol 1 ounce.

Ether 1 ounce.

Chloroform 1 ounce.

The sodium borate does not go into solution.

Correspondence.

Short, timely articles upon subjects of interest to pharmacists are solicited for this department. In order to be in time for publication in the issue of a given month, they should be in the editor's hands on the fifteenth day of the month previous. Anonymous communications will not be published; but if the author expresses a wish to have his name withheld, this wish will be scrupulously regarded and his letter considered confidential.

A Good Stamp Story.

Newark, N. J., January 29th, 1911.

To the Editor of THE DRUGGISTS CIRCULAR:

Taking advantage of your standing invitation I am sending you the following, feeling quite sure that it will be of interest to those druggists who regard the selling of stamps as a nuisance, yet recognize the fact that the average person will continue to go into a drug store when in need of that article, and the only thing for them to do is to sell the stamp and make themselves as agreeable as possible while doing so. I long ago made up my mind that the best policy in any business is to have the customer leave the store in a pleasant frame of mind, and while I am not any more fond of rushing out in the store because some one is trying to see how many blows it takes to break the glass in a case, when the instrument used is a nickel, and find that it is only a stamp customer, still I always remember to look pleasant in time, because I have a steady stamp customer who once taught me a lesson that I will never forget, and the best part of it is that he doesn't know it. While this isn't really what I started out to say, still it may do some good.

I had noticed for some time that this particular customer had been getting stamps regularly, and a careful watch on the part of my clerk and myself proved that he never bought anything else. I had just about made up my mind that he had gone the limit, and was only waiting for an opening to tell him that we sold stamps for the accommodation of customers only. This was really hard to do as he was quite a pleasant man to speak to. I'll never forget my surprise when he came in one morning, slung a grip on the counter and said, "My wife has been cleaning house this week and told me to bring these empty bottles to you as she thought you might have some use for them." I was mighty glad then that I hadn't told him what I thought he deserved, for I recognized by the bottles that his wife was really my best customer, as she ran a good-sized boarding house in the neighborhood, and you can imagine that there was quite a little revenue coming from that direction. So you see you never can tell.

What I started out to say is this: About three months ago I started a little plan that is producing the results that I hoped it would. Since the experience cited above I have been able to sell a stamp and throw in a pleasant word besides, and my clerks the same, but it is a well-known fact that the average stamp customers either have never heard the words "please" and "thank you," or if they have, have evidently forgotten how to use them. Whether it is because, with the perversity of human nature, knowing that the druggist dislikes to sell stamps, they, to use a common expression, like to rub it in, or whether they act so unmannerly simply to repay the druggist for the manner in which he hands them their stamps

I am not prepared to say, but I am free to confess that I thought it wasn't fair to me to make me suffer for the sins of my brothers, especially as I was handing out the same kind of a smile with a two-cent stamp or even a postal-card that I was when I was handing over something on which there was some return for my investment. I felt it was unjust and had about made up my mind to go through life a martyr unknown and unhonored, when I was suddenly struck by an idea. The more I thought of it the better it seemed, and now I can truly say that it is a pleasure to sell stamps, because this plan works in two ways—either the customer buys something on which there is a profit, or if he doesn't, he thanks you for the stamps anyway, while some people not only buy, but thank you as well, and greater happiness needs no druggist. The plan is so simple that those who have never tried it will be apt to toss it aside, but a little thought will show that it will work if it is applied in the right spirit, and I might say here that the spirit is really more important than the plan itself. The first time I tried it I was delighted with the result, and now, three months after using it, I really think that it solves the stamp problem.

This is how it works out: When the first man I tried it on asked for a stamp I could plainly see that it was his intention to take the stamp and walk off, ignoring me completely. He had got what he wanted and therefore had no more use for me until he wanted a stamp again, when he would simply repeat the performance. But he didn't know that I had a remedy and that he was marked for the one on whom the test was to be applied. As I gave the man his stamp I looked him right in the eye, and in my most gentlemanly manner I said, "Is there anything else you would like to have?" He fell like a bear in a trap. "Why yes, thank you, I'll have a cigar if you don't mind."

GEORGE I. SCHREIBER.

[We have always heard it maintained that there were other ways of killing a dog beside choking him to death with warm butter; and we believe there are just as many ways of selling a stamp. Brother Schreiber's is certainly a good one—in his hands—and we should like to hear how it works in the hands of others who may try it. Incidentally we should also like to hear of any other plan which gives equal satisfaction.—Editor THE DRUGGISTS CIRCULAR.]

Solving the Fly Problem.

1156 Third street, Milwaukee, Wis.

To the Editor of THE DRUGGISTS CIRCULAR:

As an unmitigated nuisance to the druggist during the hot summer months flies certainly take the first prize. They congregate in vast numbers on the screen door and on the newly cleaned windows outside, and take the first opportunity to fly in when the door is opened. I have tried various schemes to get ahead of them, and used various concoctions for their annihilation, the latter being all right in the store but absolutely worthless outside. Then finally, after I was convinced I was "up against it good and hard," I had an illuminating idea which at first seemed so absurd that I was laughed at by several friends to whom I mentioned it. However, I decided to put it into effect, and now the laugh is on the other side.

I purchased a half dozen small so-called American chameleons, a small tropical lizard (*anolis principalis*) and set them on my screen door on the outside. These small lizards feed mainly on insects—and therefore the slaughter of the innocents. I had invited several of my skeptical friends to witness my first attempt, be it failure or success. The sight was amusing. It was not long before there wasn't a solitary fly left. The majority, of course, escaped, but stayed away from the vicinity.

Since that time I have always put out my chameleons when the flies were thick. Of course, some times I have to go after them with a ladder to get them back, but on the whole the results are worth the trouble. When the little beasts are not at work they may be kept in a small box. They become very tame, allowing themselves to be handled by anybody.

Having had such success with my plan I decided to suggest to my fellow sufferers that they try it; hence my letter to you. Incidentally, the lizards may be kept in a room all summer and keep it clear of flies and other insects. If anyone wants to try this plan and does not know where to obtain the lizards, let him write to me for the address of a dealer.

ADOLPH BIRSACH.

[In writing to Mr. Biersach the seeker for information should enclose a stamped return envelope.—Editor THE DRUGGIST CIRCULAR.]

Should Doctors Be Allowed to Dispense?

Down South, January 20th, 1911.

To the Editor of THE DRUGGISTS CIRCULAR:

The *Medical Summary* for December, 1910, under "Notes and Queries" has an article entitled "Doctors Should Be Allowed to Dispense," written by W. H. C., M. D., of Mississippi. The doctor, whoever he may be, seems to think that the medical college gives all the education required for the proper dispensing of medicines, and doesn't seem to realize, as most physicians do, that the art of prescribing is one thing and the art of dispensing entirely another. We have probably as many honorable men in the drug business as could be found in the medical profession, and the accusation made by our friend that it often occurs that the druggist will substitute is entirely unfounded, and just because, like the doctor's profession, we unfortunately have some unprincipled men in our ranks, is no reason that the doctor, who does not know anything at all about dispensing, as a rule, should be burdened with this unnecessary task.

The doctor gives as his main reason for the law that doctors should be allowed to dispense, that a doctor who was ten to twenty miles from a drug store would have to dispense his own medicines, and in this instance we would say the doctor who would send his patient who lived that far from the store, to the store to have his prescription filled, would be a little less than human.

I feel sure that the time will come, and I think not far in the future, when the doctor will realize that it takes a man who is well posted to fill properly his wants, and he will rely entirely on the skill of the pharmacist to do this. The experience of the writer is that the most serious and most often substitution comes from the doctors dispensing, from the fact that when the druggist gets a prescription from the doctor

and calls him up (as most druggists do) to inform him that the article required is just out, then the doctor jumps on the druggist to know why he doesn't keep those things required to fill his prescriptions; but on the other hand when the good doctor is doing the dispensing himself, and he looks over his glasses in a very knowing manner for the very drug he has in mind as the best thing for his patient, and finds he is "just out," he will say to himself, "I will give him some of this, it's just as good." This is a fact, and I know it to be true from being intimately associated with physicians who owned their drug stores for the past fifteen years.

Of course I have spent enough time in the drug store, and associated with physicians enough to know that in a great majority of instances the drug that is given has not all to do with the patient's recovery, and that oftentimes the patient would recover without medical aid. A physician who had had several years' experience said to a young recruit at one of our State medical meetings, "Stay away awhile and give the people in your community a chance to get well," saying that 90 per cent. of the people who got sick would get well without medical aid, that the doctor could cure 5 per cent., and the other 5 per cent. would die regardless of medical treatment.

Now if the good old medical profession will just give us our just reward and not get the idea that they are the only ones that know it all, we will prove a great help to them in many ways, we being really their protectors, and relieving them of a very disagreeable part of the job.

D. M. F.

Condemns Dispensing by Physicians Equally with Prescribing by Pharmacists.

New York, January 31st, 1911.

To the Editor of THE DRUGGISTS CIRCULAR:

Reading your comments on the several letters appearing in the January issue of your CIRCULAR on the question of dispensing by physicians, I couldn't help being struck by your partiality in the matter. You seem to take it for granted that anything that is legal must necessarily be morally right at the same time.

Viewed in the light of ethics and public safety, dispensing by physicians is just as much to be condemned as prescribing by pharmacists, and if one is made illegal there is no reason why the other shouldn't be made so too.

After all, physicians are only human beings and are not exempt from the faults of such. As a class they are not morally higher than pharmacists, and the public should be safeguarded against them as it is against pharmacists.

That a law prohibiting dispensing by physicians is justifiable and practicable is proven by the fact that such a law does exist in a number of European countries. Why shouldn't we make an effort to enact it here too? And why shouldn't pharmaceutical organs advocate such a measure instead of putting it to ridicule. I am sure it is their business to work for the best interests of the profession and not against them.

In conclusion, I want to say that it is not lack of confidence in pharmacists that prompts a physician to dispense his own medicines; in the majority of cases he is actuated by selfish considerations and does it simply because there is money in it.

Let us hope that the time is not very distant when

a stop will be put to this practice which works harm to the public as well as to us. T. SHAPIRO:

[As to just how to serve the best interests of pharmacy there seems to be an honest difference of opinion. Some seem to feel that they are serving the best interests of pharmacy by antagonizing and abusing physicians. We feel that these same interests are best served by co-operation between the pharmacist and physician. A trap baited with sugar catches more flies than one in which vinegar is used.—Editor THE DRUGGISTS CIRCULAR.]

Practicing Pharmacy and Medicine in a Small Southern Town.

Brandeville, S. C., January 19th, 1911.

To the Editor of THE DRUGGISTS CIRCULAR:

The reading of Mr. Stieber's letter in your January number [page 37] has decided me to try my hand on the subject. Mr. Stieber is right about the starvation part, but there is another part that holds in this part of the country where we have quite a number of negroes and that is this: They look on everyone connected with a drug store as a doctor, and if you don't prescribe for them in simple ailments you will lose their patronage. The reason of this is that in small towns the physician owns the store and will prescribe for them. So every pharmacist will counter-prescribe—a very undesirable thing on my part.

Now as to the sale of opiates: I will not sell except on a prescription or to a person I think responsible.

I am not trying to get up a controversy, but to express my views on the subject, and we pharmacists had just as well drop the subject of the physician dispensing and the pharmacist prescribing as nothing will be done to benefit either. As long as the world rolls on the physician will be on top, as very few people look on pharmacy as a profession in this day and time; and the physician has been dispensing since time immemorial and will very probably continue, with pharmacists in the opposite role.

I would also like to remark on Mr. Merin's article: He is right in saying that the boards of health (composed of physicians) have no right to regulate pharmacy, and that physicians are responsible for a good many opiate fiends by being too quick with the "hypo." But why criticize the whole medical profession for the action of a few? Have we not men in our profession who are convicted in the courts for violating the cocaine laws? He claims in his article that his friend cured the patient with a dose of castor oil. Well, he censures that friend in his article, for he said "physicians." As you say, the same physicians are getting along well without our help, and it is up to us.

Now where I register my kick is against general stores, etc., handling the poisonous articles in original packages, while a non-licensed man cannot sell them, even under the supervision of a licensed man. That is the condition the druggists of this State have to buck against.

I have written more than I intended, so will call it off, as this is my first time. I hope that pharmacy will eventually come into its own honestly and without unnecessary knocking. JOHN F. HUCHTING.

[With this letter was enclosed an order from a

negro, recently filled by Mr. Huchting. It reads:

Some loddounn.
Some shoe tax.
Some isidine.

The second item calls to mind the little bins of assorted sizes of shoe pegs which used to stand in a row in the general store to which the writer was sent on errands when a small boy. We did not know that this commodity was ever sold by druggists.—Editor THE DRUGGISTS CIRCULAR.]

A Clerk's View of Present-Day Pharmacy.

We have been favored with a communication from a Chicago drug clerk which, while containing a number of suggestions worth considering, is far too long for publication here, as it would occupy perhaps five pages in the CIRCULAR. The writer touches upon a variety of subjects—indeed he "scatters his fire" too much, and shows a tendency to pull down rather than build up—but he refers to one phase of the drug business in a manner which makes interesting reading. He says:

"I worked in a store in an Indiana city of about 60,000, the stock of which would invoice about \$15,000. This store did a business of about \$20,000 annually. The prescription section was the indifferent part of the business, the prescriptions averaging about two a day. I was the only registered man beside the proprietor, who was also a city official. Besides myself there was a camera man and a cigar clerk, but no porter. Who do you think did the porter work? Why, 'yours truly.' The camera end was the big part of the business. Being a man of some family, the meager salary I was getting did not quite make both ends meet. I repeatedly asked the proprietor for some slight increase, after vainly talking to him about the virtues of the N. F. and U. S. P. propaganda, so he came to me one day and told me that although he realized that I knew the drug business and was quite proficient, he had no occasion for a high-class man and could not meet my demands for an increase of salary, and that he had already selected a cheap man. This druggist had the hybrid fever bad, wanted new lines and new lines, howling that the drug business was a back number. This man was actually discouraging all professional business that came to his store. It is true he had quite a stock of bottles and corks, which the many physicians in the town bought, but he made no effort to compete with the manufacturers who were supplying these physicians with their drugs and preparations."

The lack of professionalism among pharmacists and the loss that they sustain through such lack, seems to be the burden of this drug clerk's cry, for he goes on, in another place, to say:

"I have known many senior medical students and young M. D.'s to come to the pharmacist for advice, looking to him for their learning in materia medica and therapeutics, admitting that their colleges did not teach them that particular subject as they knew the pharmacist knew it. How did the pharmacist treat those men but from an arrogant, egotistical standpoint, saying there was nothing in those fellows, anyway? At least too busy with their side lines and at most what a direputable looking sight the average drug store library is. We have allowed many advantages to slip by. The senior medical students and young

M. D.'s were quickly taken care of by the specialty men and drug baron; how well they finished his insufficient education in materia medica and therapeutics, you too well know to need comment here. Let us give credit where credit is due. We know that the medical profession is not a supporter of the department store variety of drug store so long as there remain individual pharmacies wherein the serving of the prescriber is the first law and his wishes are supreme.

"The professions of pharmacy and medicine cannot be separated without serious loss to one or the other. They are as husband and wife—estrangement may come but sweeter conciliation must follow; the advancement of one must be followed by an equivalent betterment in the other; the loss of one is the loss of the other. The educated physician of to-day is fresh from the lecture room on modern therapy, hygiene and bacteriology, fresh from the sterile operating room and hospital, the logical man to be your associate and friend. Think what a world of work there is in helping him keep the people well, rather than curing them when they are sick. Is it a wonder that he shuns you with your soda fountain and expectorating cigar customers?"

"Can we ask recognition and reciprocity from physicians, members of our sister profession, before we show them our aims and worthiness and can recommend necessary respect for them from our followers. Medicine long ago discovered that a strict adherence to its code of ethics meant professional life, and violation of the same meant professional death. The importance of the code is taught to the student the first thing after he enters the college portals. How the physician respects it we all well know. The easily discouraged one who tries anything inconsistent with its teaching, such as indulging in quack advertising or other obnoxious methods, is quickly ostracized from the ranks of the profession and looked upon with disrespect and disgust by his fellow members. To exist as a profession with the necessary respect attending it, we must follow along similar lines. We must make ourselves powerful enough to be a desirable friend and ally of the medical profession. To be its enemy, as some have counselled, and still exist as a profession, is impossible. If they have erred against us it has been through ignorance of our worthiness. Let us be patient with them and teach them different. Let us assist each other to ostracize one another's quacks. Let us establish reciprocity between the two professions regarding dispensing by physicians and prescribing by pharmacists. Let us associate, confer and advise with a view to securing necessary legislation for each other's benefit.

"'Patent' medicines have been the cause of much discussion and perplexity. What have we achieved by all our menaces, which have been many and ferocious? What advantage have we derived from the many plans we have tried? Pharmacists, proprietors of drug stores, why do you allow every shyster and piker who thinks he has some wonderful 'dope,' often as not something pilfered from the Pharmacopœia or National Formulary, whose virtues he has exaggerated beyond recognition, to stuff your shelves with unprofitable goods, inconsistent with sensible pharmacy and medicine, disreputable trash advertised to a gullible public, and with you as a party to the guilt? How soon are we going to use our efforts to eliminate this useless parasite? We are patting

ourselves on the back, because some of our organizations have made resolutions against the sale of baby killers. Not so very long ago, several prominent periodicals exposed a number of prominent fakes, to be found in most drug stores. Did you go on record as against the sale of them? What a splendid opportunity you had to show your interest in public welfare. You still have them on your shelves. Is it because you are making so much money on them? Surely not. Is it because you are waiting for the other fellow to stop selling them first? When are you going to stop giving the most prominent places in your stores for the showing of all the beautiful lithographs and displays with which your foxy 'patent' fakers are supplying you? So Chesterfield-like in them, is it not? If you only knew what an insult it is to your profession, how it disgusts the man who should be your most powerful ally and friend, you would stop it."

Before closing, this clerk offers a few suggestions to and about clerks. In this connection he says:

"We should discourage our fellow-members from giving their services to cut-rate stores, and discourage the exaction of porter services from registered men. We should encourage sanitation and hygiene as becomes our relation with advanced medicine; encourage the equipment of drug store laboratories with proper manufacturing utensils; encourage the propaganda for the greater use of official drugs; and try to establish a scale of salaries, and hours of labor. Above all, we should endeavor to impress upon the young clerk with insufficient assets, the folly of entering business on his own account."

The Scope of the Pharmacopœia.

Writing in the *Critic and Guide*, Dr. Solomon Solis-Cohen, of Philadelphia, chairman of the subcommittee on admissions and deletions of the pharmacopœial revision committee, summarizes the question of what the Pharmacopœia should contain in the following manner:

The Pharmacopœia is a book of pharmacal standards and neither an advisory nor a minority work on therapeutics.

Admission or rejection should depend on the voice of the whole profession, and not on the voice of teachers or leaders only, whether pharmacologists, clinicians, or therapeutists.

Many preparations of one drug are permissible, when desired by physicians in general.

Many drugs of similar action are permissible and even necessary.

Active principles should not displace the crude drug and galenic preparations, unless physicians in general all agree that the active principle is the only necessary or desirable preparation.

Monopolization by patent or trade-mark should not exclude a drug otherwise proper to be admitted.

In the case of trade-marked names legal advice should be taken as to the best method of procedure.

In the case of process-patents and product-patents, the effort should be made to use pharmacopœial control and standardization to the mitigation of the evils of high price and uncertainty of product possible under the present bad system.

A determined effort should be made to modify the laws of the United States so that in the case of medicines, processes only, and not products, can be patented.

Trade-marks can only be manufacturers' brands, and hence the common name of a medicine cannot be used as such. If this is not good law at present, it should be made such by statute.

Notices of Books Received.

A TEXT-BOOK OF BACTERIOLOGY, a Practical Treatise for Students and Practitioners of Medicine. By Philip Hanson Hiss, Jr., M. D., and Hans Zinsser, M. D. With one hundred and fifty-six illustrations in the text, some of which are colored. Octavo; cloth; xiv+745 pages. New York and London: D. Appleton and Company. 1910.

Leaders in medical thought, men able to forecast the future of their profession from a thorough acquaintance with the relative influence of the various leavens at work in the fabric of medical practice, have frequently expressed the belief that bacteriology will some day come to be almost all of medicine. At this day the progress in medical bacteriology is more rapid than is that of any other branch of the healing art. So rapid, in truth, are the strides, that the successful clinician knows that he cannot keep pace with them and is turning to the trained pharmacist for assistance in laboratory diagnosis. And the wide-awake pharmacist is equipping himself so as to be found not wanting.

In this book Drs. Hiss and Zinsser have presented in concise form the present-day knowledge of pathogenic bacteriology. From the wide realms of technical bacteriology they have drawn examples tending to clarify the medical phase of the subject and have laid particular stress upon the fundamental principles. The newer things in medical bacteriology, the side-chain antitoxic reaction, the lytic process, and the serum diagnoses are comprehensively treated. A valuable section is devoted to diseases of unknown etiology. The final section deals with the subject of bacteria in air, soil, water, and milk.

PHYSICAL CHEMISTRY, Its Bearing on Biology and Medicine. By James C. Philip, M. A., Ph. D., D. Sc. Duodecimo; cloth; vii+312 pages. New York: Longmans, Green and Co.; London: Edward Arnold.

In presenting for the instruction of his readers the application of physico-chemical principles to biology, physiology and pathology the author begins with the phenomena of the behavior of gases; leads them by way of absorption through solutions, and the osmotic phenomenon to the broad subject of the behavior of solute and solvent: Electrolytic dissolution which has recently been widely applied in physiological chemistry is treated at length; and following this chapter is a comprehensive presentation of the subject of colloids. Adsorption and chemical equilibrium, quite essential principles of physiological chemistry, are the subjects of several chapters.

THE SCIENTIFIC AMERICAN CYCLOPEDIA OF FORMULAS, Partly Based upon the Twenty-eighth Edition of Scientific American Cyclopaedia of Receipts, Notes and Queries. Edited by Albert A. Hopkins. 15,000 Formulas. Octavo; vii+1077 pages. \$5. New York: Munn & Co., Inc. 1911.

As long as the drug store is required to be a supply depot for glues, shoe polishes, inks, egg dyes, soda water, toilet preparations, battery fluids, clothes cleaners and a thousand and one other household needs (to say nothing of the versatility as tinker, electrician, and free consulting chemist so essentially a part of the qualifications of the successful druggist) so long will the drug-store keeper have a need for a vade-mecum

of the nature of this formulary. Formulas are not the all-powerful agents that some folks seem to believe; but formulas replace a great deal of preliminary experimentation when one desires to produce a given result. This compilation of formulas will help in that way in the following matters: Dairying, farming, renovating, metal working, art, foods, beverages, textiles, painting, photography, perfumery, cosmetics, entomology, and some more.

Many druggists doubtless are familiar with the former formulary issued by the *Scientific American*. The present volume has all the good points of its predecessor and a number of improvements. Chief among these latter is a comprehensive index practically indispensable in any work of reference.

"SALVARSAN" or "606" (Dioxy-Diamino-Arsenobenzol), Its Chemistry, Pharmacy and Therapeutics. By W. Harrison Martindale, Ph. S., F. C. S., and W. Wynn Westcott, M. B., D. P. H. Octavo; xv+77 pages. \$1.50 net. New York: Paul B. Hoeber. 1911.

Pharmaceutical as well as medical minds are to-day occupied with the new medical science of chemico-therapy; and Ehrlich's "606" is the cynosure. One must begin with the synthesis of a chemical medicament to reach a sound knowledge of its application in pathology. And thus have the authors of this book taken up the study of dioxy-diamino-arsenobenzol.

Its timeliness is but one of the recommendations of this volume; not the least of these is its comprehensiveness. Many are the pharmacists who will be interested in the various chapters, particularly those pharmaceutical in their nature as having to do with the preparation of the drug for administration.

SOME KNOWN AND THREE NEW ENDOPARASITIC TREMATODES FROM AMERICAN FRESH-WATER FISH. By Joseph Goldberger. (2) ON SOME NEW PARASITIC TREMATODE WORMS OF THE GENUS TELORCHIS. By Joseph Goldberger. (3) A NEW SPECIES OF ATHESMIA FROM A MONKEY. By Joseph Goldberger and Charles G. Crane. Bulletin No. 71, Hygienic Laboratory, Public Health and Marine-Hospital Service of the United States.

THE PRODUCTION OF VOLATILE OILS AND PERFUMERY PLANTS IN THE UNITED STATES. By Frank Rabak. Bulletin No. 195, Bureau of Plant Industry, United States Department of Agriculture. Octavo; paper; 55 pages, illustrated. Washington: Government Printing Office. 1910.

PROCEEDINGS OF THE NORTH CAROLINA PHARMACEUTICAL ASSOCIATION at the Thirty-first Annual Meeting, Held at Charlotte, June 8th to 10th, 1910.

PROCEEDINGS OF THE CONNECTICUT PHARMACEUTICAL ASSOCIATION at the Thirty-fourth Annual Meeting Held at Morris Cove, June 14th and 15th, 1910.

SEVENTEENTH ANNUAL REPORT OF THE COLORADO BOARD OF PHARMACY for the Year Ending July 2d, 1910.

EIGHTH ANNUAL REPORT OF THE SECRETARY OF COMMERCE AND LABOR, 1910.

Some Board Questions Answered.

Students sometimes have the germ of an idea, but develop it along peculiar lines. For instance, a college professor tells of a student who was applying the heat of an alcohol flame to a liquid in a flask held in place by a movable ring on a retort stand. The distance between the flame and the flask being too great, the instructor told the student to bring the heat closer to the liquid, expecting him, of course, to lower the ring. But the student's mind worked along original lines, and prompted him to do literally what the instructor had told him to do, namely, to bring the heat nearer to the liquid, and this he did by putting books under the lamp. If teachers and examiners would only be explicit in their instructions and questions, and would try to look at the results and answers from the students' standpoint, many things which seem ridiculous to them would not happen, and many that do happen would seem less ridiculous.

Partly to supply a basis for a psychological study by teachers and examiners, and partly to show to board candidates some "awful examples" which they should strive not to add to, we have made a collection of authentic answers to board questions as given by candidates for licenses, and present an installment of them herewith. Of course nothing could be further from our object than a desire to humiliate ignorant or over-nervous candidates by publishing their remarkable answers. On the contrary we feel that what we are publishing will be of benefit to candidates as well as to examiners. The State in which the answers were given is indicated, except in cases in which it is withheld by request; and sometimes the question appears and sometimes it is left to the imagination. It should be borne in mind that often the poor pharmacist is more glib at answering questions than the good one, and frequently a man who knows is so embarrassed by the fact that he is undergoing an examination which means much to him, that he says or does foolish things that he would never be guilty of in real business.

New York.

Q. How is decolorized tincture of iodine prepared?

A. It is made by taking iodine which has a color and subliming it with animal charcoal when it loses its color. It is then dissolved in alcohol. Wood charcoal is not so good.

Q. What is meant by the term "official" as used in pharmacy?

A. Official means something that has power or authority. Example: The mayor or a policeman.

Q. What is "hive syrup"?

A. Hive syrup is a syrup which contains squill and many other things, but particularly honey. As honey is obtained from the bee and as the bee has its nest in a hive the syrup is called hive syrup.

Q. How would you ascertain whether or not a drug was exhausted?

A. I do not understand the question. The only way I understand the meaning of this word is when one has worked hard all day in a drug store, then one is exhausted.

Q. What is meant by the term "temporary hardness" as applied to water?

A. When it is frozen.

Q. Name five solvents employed in pharmacy.

A. [The candidate named five leading wholesale firms. He was a German, with a "book" knowledge of English and had construed the term "solvent" to mean the opposite of "insolvent."]

Q. Translate the following abbreviations into English: S. a., T. i. d., etc., etc.

A. S. a. means South America.

Q. What is the meaning of p. r. n.?

A. Don't leave without the money.

Pennsylvania.

Q. From what is arrow root obtained?

A. Arrow root is obtained from the root of the arrow.

Q. Why is HCl used in purifying animal charcoal?

A. Because no other acid would act the same way as HCl.

Q. Why is powdered aspidium not a reliable form in which to administer this drug?

A. Because it will not make as firm a mass as glycyrrhiza and has not the same action.

Q. Why is the name belladonna applied to "deadly night shade"?

A. I think the name d. n. s. as applied to belladonna is merely a legend handed down for some time to the effect that belladonna was more active in the night shade than any other time and more poisonous in the night than at any other time.

A. Because if you take a dose it's good night for this earth.

A. Because the people in the country from where it grows have known of falling over by just walking by the tree at night showing that it must be a very poisonous drug.

Q. Why is sodium bicarbonate directed to be dissolved in water not exceeding the temperature of 50° C. in making saccharated ferrous carbonate?

A. So as not to drive all its water of crystallization off.

A. White wine is made from acetic acid and water and alcohol.

A. Red wine is made from antimony.

A. When white wine is prescribed on your specification you should use vinegar of squills.

A. White wine is made by distilling starchy matter and carbohydrates.

A. 350 c.c. linseed oil sp. gr. 0.925 weighs 48562½ grains. 350 gm. the same.

New Jersey.

Q. What is the penalty for conducting a drug store without a registered pharmacist in charge?

A. First time the board of pharmacy have a right to close up the store, on second time the man can be sent to jail for life.

Q. What is the average dose of quinine sulphate?

A. Average dose 40 grains.

A. The dose of corrosive sublimate is 3i.

Q. Name an antidote for carbolic acid poisoning.

A. Alcohol. I think it is to be rubbed on the stomach.

Q. Name an antidote for opium poisoning.

A. Keep patient in a horizontal position.

A. A physiological antidote is one that moves the bowels.

A. A chemical antidote is where you give a chemical for an antidote.

Maryland.

Q. Write a prescription for 2 fluid ounces of an eye wash containing 1 in 400 zinc sulphate.

A. R Zinc sulphate..... grs. xvi.

Aquaæ ʒil.

Glycerin q. s.

Q. Make 8 fluid ounces of compound infusion of gentian.

Although a percolator and stand were on each working table, one candidate poured boiling water on the powdered drug, and after allowing it to macerate about fifteen minutes, strained it through his handkerchief, which did not seem to be overclean. This candidate's work was all on a par with this, yet he could not understand how he failed, as he thought the examination exceptionally easy.

Georgia.

(From an Oral Examination.)

Q. What is spirit of Mindererus?

A. Rerus dissolved in alcohol.

Q. What would you do in a case of morphine poison?

A. Give an emetic and use a breast pump. [Only slightly off, and on a "technicality" at that.]

Q. Define an escharotic.

A. Something to produce child-birth.

Q. State the difference and resemblance between organic and inorganic chemistry.

A. The question upon the face of it is absurd. One is a thing with life; the other a thing without life. You might as well ask me what relation a cow bears to the grass it feeds upon. The cow grazes upon the most luscious grass at the dictation of its own will, moving from place

to place, while the grass is a fixture, manifesting no manifestation of its own manifesting.

Tennessee.

Q. Give habitat of wild cherry and an official preparation.

A. Virginia; fluidextract wild cherry [naming the maker, a large pharmaceutical manufacturing house.]

Q. Give composition of Fowler's solution and the dose.

A. Composition, bicarbonat potash, oil anise, alcohol and water. Dose, teaspoonful.

Q. Give medical properties of tincture of gelsemium.

A. Used in cases of worry; largely used by criminals about to be executed.

Name of State Withheld.

Q. (a) Define specific gravity. (b) How is the specific gravity of solids obtained. (c) Illustrate how you would use specific gravity in pharmaceutical work. (d) Mention four substances of low specific gravity. (e) Four of high specific gravity.

A. (a) Specific gravity is the attraction a substance has towards the earth. (b) It is obtained by comparison and weighing. (c) [No answer.] (d) Benzine, alcohol, chloroform, wood, cork. [He was too smart; he gave one too many.] (e) Croton oil, castor oil, lead, iron. [His experience had been obtained in Ohio.]

A. (a) Specific gravity is the difference from the attraction of the earth and some dry body. (b) By weighing. (c) Making solutions. (d) Glycerin, boric acid, chlorate potash, bismuth. (e) Carbolic acid, morphine, powdered acetate potash. [This candidate was from New York.]

A. (a) Specific gravity is the attraction or weight of a substance as compared with hydrogen. (b) Specific gravity is obtained by suspending a solid in a liquid and comparing the loss of weight with the original. (c) [No answer.] (d) Benzene, water, lithium carbonate. (e) [No answer. This candidate "learned the business" in Illinois.]

A. An element is a product prepared by gentle heat, and is an absorbent of moisture by air.

Missouri.

At one examination a candidate said that beef, iron and wine, and sulphur were antidotes to morphine poisoning.

He "identified" iron sulphate as sugar of milk.

A dose of corrosive mercuric chloride he stated to be 3 grains.

Iowa.

A. Santonin is a powder made from the stomach of the hog.

A. Menthol is a by product of camphor.

A. Gallic acid is taken from galls of animals.

A. All potassium salts are alike in color and can be distinguished by tasting or using them.

A. Ingredients of citrine ointment are citric acid and lard.

A. Ingredients of basilicon ointment are silicon and lard.

Q. Wherein do tinctures differ from spirits?

A. Tinctures are more permanent and spirits do not have a heavy precipitate like tinctures.

Q. Give a description of ergot?

A. It is the milky exudation of claviceps purpurea.

A. Pancreatin is the pancreas of the internal abdomen of the hog.

A. Precipitation is the act of extracting the principle in water and chemically.

A. Precipitation is the gas coming from a liquid, can be prevented by glycerine. [Age twenty-five years, nine years' experience.]

Q. Give a simple test for carbonates?

A. When heated give off a crackling sound. [Age twenty-two years, five years' experience.]

Q. Describe some of the properties of phosphorus?

A. A lustrous metal, dose 1/128 grain, it combines with acids and forms salts.

Q. Why should oils not be used as an antidote to poisoning by phosphorus?

A. It is kept under oil, oil would prevent antidotes acting on it.

Q. Medical properties?

A. Sedative.

Q. Why should it not be administered alone?

A. Because it is a gum and the alkali of the stomach doesn't dissolve it.

Q. What is opium?

A. An alkaloid found in erythroxin.

Q. Scammony, what is it?

A. Stirlingia.

Q. What is understood by a drug having a cumulative effect?

A. One which is adhesive.

Q. Name such a drug commonly prescribed.

A. Rubber.

Q. What are the ingredients of Dover's powder?

A. Aloes, myrrha, sugar milk, myristica.

Q. Medical action?

A. Cathartic.

Q. Describe appearance of following—

Lactic acid? A. A glacial crystalline appearance.

Cochineal? A. A white powder

Thymol. A. A yellowish powder.

South Dakota.

Q. Name two root drugs that are alteratives.

A. Pepsin and pancreatin. [Here is an insight into some students' reasoning: Pepsin and pancreatin are from the hog, the hog roots—and there you are.]

Q. Define and give the source of stearic acid.

A. Stearic acid is an acid obtained from the fat of the "steer."

Q. $\text{Na}_2 + \text{Ca}(\text{OH})_2 = ?$

A. $\text{Na}_2 + \text{Ca}(\text{OH})_2 = \text{H}_2\text{SO}_4 + \text{HNO}_3$.

Q. What are non-crystallizable substances called?

A. Non-crystallizable substances are called resins and gum resins.

California.

Q. What is the natural source of oxalic acid.

A. It has no natural source.

Q. How is oxalic acid prepared artificially?

A. It is not prepared artificially. It is prepared by taking crystals and treating them with acid.

Q. In what form does oxalic acid crystallize?

A. In its normal form.

Q. How is carbon disulphide prepared?

A. By heating wood, and passing the gas into water.

A. By passing CO_2 into air.

Q. Describe the physical properties of carbon disulphide.

A. It has no physical properties, but has a rotten odor.

Q. What is the principal use of carbon disulphide?

A. For passing into water to make soda water.

Q. What is meant by valency?

A. Valency means point at which it boils.

Q. What is meant by a radical?

A. Radical means the part, or how much.

Q. What is an acid.

A. An acid is a salt which has a bitter taste.

Q. Give the chemical name of white vitriol?

A. C. P. sulphuric acid.

Q. Of what is Fehling's solution made, and what is its principal use?

A. Made from iron sulphate. Its used mostly for nervousness.

Q. Define briefly the following terms:

Dimorphous.

A. In state of coma.

Acicular.

A. Having an acid taste.

Prismatic.

A. Having clear.

Hygroscopic.

A. Means nothing whatever.

Lamellar.

A. The same.

Q. What is liver of sulphur?

A. Salts of tartar.

Q. What is methylene blue?

A. Antiseptic tablets.

Q. What are the symptoms of poisoning by strychnine?

A. The eyes bulge and the bowels become stiff.

Q. What are the symptoms of poisoning by morphine?

A. Turn a person rather yellow and num.

Q. What is the best antidote for arsenic poisoning?

A. Flour and water made by mixing the flour and water or by injecting ammonia water, made mixing equal parts of water and ammonia.

Q. What is meant by cumulative poison?

A. Poison now totally eliminated during the injection.

A. Never heard of this kind of poisoning before.

Q. (a) Describe the physical properties of chlorine? (b) Give the density of chlorine, and name an important acid into which it enters?

A. (a) Chlorine is a gas of yellowish color. (b) Chlorine is a thick liquid. [Given by the same candidate.]

Q. What is the difference between adhesion and cohesion?

A. Adhesion the molecules simply adhere, sticky or stick together. Cohesion the molecules get together and stick.

Q. Why should granular effervescent salts be kept in well corked containers?

A. To prevent the strength from losing it.

Q. How does bromine occur in nature, and how obtained?

A. In white tasteless powder.

Q. What is the principal use of phosphorus?

A. As an excipient in pills.

Q. (a) Define *hora somni*. (b) *pro re nata*.

A. (a) A tablespoonful in a horizontal position. (b) Let it be made according to law.

Q. Explain the reaction which takes place in the manufacture of citrine ointment?

A. When used with an iron spatula becomes oxidized and turns black.

Name of State Withheld.

Q. (a) What is an expectorant. (b) Name a medicine used as such.

A. (a) An expectorant is a medicine used in female trouble. (b) Example, Jane's expectorant.

Q. Give the Latin name for white oak bark.

A. *Alberis barcti*.

Q. Give official name, family, and habitat of burdock.

A. Burdock, family, buckwheat, name, rheum. Habitat U. S. and France, a cathartic $\frac{1}{2}$ fluid dram. Due to the cathartic acid.

Q. What is *adeps lanæ hydrosus*?

A. Hydrous wool fat from the interior glands of the sheep.

A. It is a fat taken from the stomach of the hog.

Maybe we write letters which are just as ridiculous as the answers given by some candidates for board license; it is not for us to say; but here are the views of a man who has seen specimens of both, and was requested in one to furnish some examples of the other:

An examiner, who has been on the job for years just passes up any little fool answer, and as a usual thing passes up fool questions the same way. Of course, if your editor on this particular subject has an obsession that he must have these, and that they are real interesting to your readers, why, that is his business, and far be it from me to butt in, as I never edited any drug journal, and I like a joke as well as anybody (and that is probably why I answered the letter). But when a fellow is on several committees for the State Association, and is asked a whole lot of more important and business questions, why, this one don't seem to be very essential.

As a sort of offset to this; that is to say, in order at least to pull some board members down to our level, we quote from the letter of an old-time examiner:

Fool questions oftentimes lead to or suggest wise answers, and my experience as well as observation strengthen my suspicion that even board members are not always beyond the pale of foolishness or exempt from committing ridiculous blunders.

One examiner who contributes to this "symposium" writes that he would like to give examples of perfect answers also.

Another writes:

During my service as examiner for the past ten years we have had many amusing answers to questions propounded by us, and while many of them were ludicrous in the extreme, I have often had a feeling that it was partly our fault in that we did not ask the questions right, to get the answers we hoped for.

From a board member in the Far West:

There are certainly many interesting and ridiculous answers given by the students at the board of pharmacy examinations, and if I had one-half of the funny things filed that have happened during my nearly ten years' experience as an examiner, I could almost write a book; but as you know, in a busy every-day life we have only to laugh and pass on to the next.

Even some of the letters that one receives from the would-be druggists are funny enough for *Puck* or *Judge*. Any way, it seems to me that such an article as you propose will do no harm, and it will no doubt do many of us a lot of good.

Not so far from home a board member, in reply to our request for data, wrote a letter from which we quote at some length:

I almost am afraid to comply with this request, and were it not for the fact that it is being made by a journal which I hold in high esteem, I should decline to respond.

Some years ago, perhaps eight or ten or even more, I had the temerity to write an article dealing with this same question, supplemented with numerous horrible examples, which articles, or rather paper, I read before one of the local societies. Much to my surprise I was hauled over the coals "good and plenty" by some of my friends of the pharmaceutical press. I took the lesson to heart and since that time I have stood in mortal fear and terror of this question and have avoided touching upon it, except in the sanctity of the class-room or laboratory, and even there with a faint heart. I am, however, much encouraged by your request and will try to pluck up enough courage to respond, hoping that the gods will spare me, and that I shall not this time be atomized, pulverized and utterly annihilated.

At the outset allow me to say that the best time for the propagation and ripening of "gems" of this type has passed and gone. With the increased requirements for admission and graduation from colleges in this State, a better class of men and women have come on deck, and ridiculous answers are now very much the exception.

I am sending you these questions and answers with the understanding that you will be responsible for whatever may happen in connection with their publication, to me, my executors, heirs and assigns. If you are still willing to take the risk, go ahead at your peril.

At one time I had enough of this material on hand to fill a book, even a good-sized one, but after the experience above alluded to, in the darkness of night I consigned every scrap of it to the depths of the ocean, properly weighted, lest it should come back and haunt me, so that I now have only my memory to rely upon.

A New England brother favors us with a few observations and one somewhat peculiar answer. He writes:

It is with regret that we have such replies at nearly every examination. This board has been severely criticised for the small percentage to whom it issues certificates, but I believe if the druggists in this State could see some of the answers that we receive at every examination they would perhaps lay some of the blame upon the candidates rather than the examiners.

I believe the reply to one question in oral examination that I asked of a Frenchman struck me as being the most comical one I ever received, although it was correct and showed that the candidate was thoroughly conversant with the subject. I said to him: "Now, knowing that water and oils are not miscible, how do you explain that linseed oil and lime water, used in making carron oil, are miscible?" His answer was: "Vy—dose alkali in ze lime water, she make soap into it."

An examiner who supplied some of the queer answers herein quoted, takes a slap at the professors. He says:

I know that many teachers have a contempt for examinations, but as we have no other means of ascertaining how much, if any, knowledge was absorbed from the instruction given we will consider that a good examination carefully conducted, at least weeds out the grossly incompetent.

Experience as a board member teaches a few things not learned at other schools. A man who has had some of this kind of experience writes:

The first set of examination papers I helped to mark was a revelation to me. How these boys, who are all college graduates, manage to pass their college "exams" is a mystery too deep for me to fathom. . . . I have not a very good opinion of our colleges. I believe they are money-making institutions and care nothing about the kind of men they turn out. I further believe that 90 per cent. of the men who enter college have not sufficient preparatory education and the first and greatest wrong is committed in permitting them to enter.

It is our intention to give further answers tending to throw a light on the workings of board candidates' minds in a subsequent issue, and if any board member or ex-board member has any to contribute we should be glad to hear from him.

DRUG STORE ADVERTISING

By M. P. GOULD, of New York

In this department some of the fundamentals of successful drug store advertising will be expounded each month. The aim is to correct errors of advertising and establish the most profitable and advisable methods of building up retail drug trade by means of the powerful influence of advertising.

A Study of Retail Advertising.

During a recent trip to Kansas I was invited by the Commercial Club of Topeka to address the retail merchants of that city on the subject of advertising. What I said was practically impromptu, because I had only half a day to think the matter over before the address was given; but those who attended the meeting seemed to be so interested in what I said, and so complimentary regarding it, that I have come to the conclusion that if I said the same things to the readers of THE DRUGGISTS CIRCULAR, they also may be interested in it.

I made the statement in my address that on that morning I had picked up the Topeka papers and had run my eyes over the advertisements printed in those papers, with the result that I was struck by the dullness and uninteresting character of the copy. I have made this experiment many times. The advertisements in the Topeka papers are above the average. They are brighter and more clever and interesting than the newspaper advertisements in many parts of the country. The fact is that if one will make a study of the advertisements in newspapers in his town, or any other town, he will be impressed by the poor attempt at interest-awakening in the wording.

When I made this statement, one of the men in the audience—whom I had invited to ask questions at any time—remarked that he had heard other men say that newspaper advertising was dull, but that he had not seen anyone yet who had the nerve to point out the dull part and attempt to make it more interesting. I immediately called for a paper and asked if he had an advertisement in that paper. It happened that he was a banker, and that he did have an advertisement in that issue. Of course, everybody was very much pleased, because it looked as if something interesting was going to happen right then and there. His advertisement was very well set-up in a 3-inch double column space with plenty of white margin around the edge, and worded about like this: "National Bank; Checking, Trust and Savings Departments." I read those out to the crowd, and then I asked: "Well, what of it?" and everybody roared. In other words, what if he has those three departments? Who cares? The mere fact that you can put your money in that bank and draw it out was not sufficient to draw depositors to that bank, or sufficient to warrant the expenditure of money in saying such a commonplace thing.

The banker then said to me: "How would you change it?" And the crowd laughed again because they thought it was on me that time. But I said, "Well, now, let me follow the procedure that is usual in such matters with me, and let me ask you some questions." "Do you pay interest on deposits?" I asked. "Yes; 3 per cent," answered the banker. "Well, why don't you say that?" I replied. "Isn't that the interesting fact? Isn't it more interesting to the public to know that they can get 3 per cent. on deposits in your bank, than merely to know that they can put their money in and check it out? Does not anyone know that he can do that much in almost any kind of a bank? What is the use of wasting money and abusing the intelligence of the public to say something that everybody knows?"

Then the banker replied: "Everybody around here

Spring House Painting

WHEN all the world seems to change from the dullness of winter to the brightness of summer, then is a good time to change the aspect of the house and put a little brightness into it. Paint it. Put new, live colors on it that will not only improve its appearance, but will also preserve the wood. The purity and quality sort is the class of house paints we recommend, and we have them in forty colors and tints.

(Name and address)

Has
this
thought
struck
you
yet?

Harmonizing Interiors

INSIDE paints, varnishes, finishes and wall coverings. It is not merely a question of what to use to produce the handsomest results in paint effects alone; your interior decorations should harmonize with the furnishings. So you want our paints and finishes and our help in selecting colors and combinations. Wall papers, too—all the best and newest designs and colors for side-wall, ceiling and panels. Prices of all goods right.

(Name and address)

knows that all the banks pay 3 per cent." "That," I replied, "is very doubtful to my mind. I do not mean to question your word, but I think that not everybody knows that all the banks pay 3 per cent." Then I asked: "How does your chief competitor advertise?" And he replied: "He advertises that his bank pays 3 per cent. on deposits." "Then he's got you skinned," said I. And the crowd roared again.

The lesson to be drawn from this heckling is that in an advertisement you should say something definite, something that is worth saying, and that will be interesting to the man who reads it. That brings me up to the first point which I made in the Topeka address, and to which many of the audience in talking with me afterwards referred specifically. This is an appeal to the self-interest of the reader.

There are so many advertisers who are thinking only of themselves. They sit down at their desk and they think of the goods they have to sell. They become so interested in describing those goods, and they think so much about the money that they want to get from the sale of those goods, that they do not take into consideration what the reader of that advertisement may be thinking about. Every advertisement which appeals to the self-interest of the reader has won its first victory. It gets the attention of that reader because he can see in that advertisement something that will be of benefit to himself.

In the Topeka address another point came out which interested the retail merchants there who are advertisers. A household furnishing merchant asked me to criticise his advertising. After glancing at a specimen I said: "It is a fine advertisement, but you did not prepare it." Then everybody laughed at him, but he admitted that he did not prepare it, but that the advertisement was furnished by the manufacturers of the goods featured. The advertisement was announcing a week's demonstration at this man's store. It told of an experiment that could be made with two classes of cooking utensils, showing which was the better by the time that it took for the heat to travel to the handle. I went on to explain why that was a good advertisement. "The reason why," I said, "is that this advertisement is full of news value. It tells the women of Topeka something which they will be interested in reading about, and interested in coming to the store to see. It describes something that is happening. It is not merely made up of a string of words describing something that has no action to it."

The lesson to be drawn from this is that the more action there is in the story, the more interesting the advertising will be. The lazy advertiser who simply sits down to his desk and writes a lot of words about goods in his store is not usually a good advertiser, unless he is a genius in writing—in which case he usually is not a good business man.

A third man wanted to know if I believed in bill board advertising. I immediately asked him why he asked me that question; because I had a feeling that that question did not call for a direct answer. It turned out that this man was not a merchant at all, but a representative of the bill-board exploiters of that town, and that he was trying to get my endorsement of bill-board advertising for his own use. Consequently, when he asked me the question and I answered him as I did, the laugh was on him. And that leads me to moralize again. When any man goes to you with an advertising proposition, study the proposition for its own value, and also find out the connection that the man presenting it has with the proposition, so as to ascertain whether he is prejudiced or independent.

A fourth man wanted to know whether I considered it wiser to advertise when business was dull, or when business was good. I replied that the best time to advertise was when business was good. I explained this by pointing out that there were many lines of merchandise which have seasons, and that it was wasting money to advertise those goods out of season. Consequently, if a person advertised those goods during the dull season to get results he would have to spend three or four times as much money as he would if he got the trade on the incoming tide. Furthermore, when a store has a lack of business, and cannot make the trade respond to its advertising—to some extent at least—the fault too often is with the store, and not with the advertising. Frequently a retailer goes along in a rut, using the same old place, with the same old copy, in the same old paper, advertising the same old goods, until the whole proposition becomes so stale that nobody but

the paper and himself would know if the advertising was omitted. Such a retailer needs to "shake himself" and go off for a trip and look over other stores, until he gets a new point of view and becomes ambitious to make his own store better and bigger, and then come home and do things in his own store. Then his advertising will bring far better returns.

After the address was over, this man came up to me and said: "I am a grocer. Most of the groceries are bought on Saturday. We have about all the trade that we can wait on on Saturday, without advertising. Nevertheless, we have found it far more profitable to hire extra clerks to work on Saturday only, because if we put an advertisement in on Thursday or Friday for Saturday's trade, the people will respond to it very quickly and liberally and we can crowd the store, but if we put the same advertisement in on Monday we will get very little response for it in Tuesday's trade."

This is true of department stores as well. In buying space throughout the United States in all kinds of newspapers, I have discovered this fact: The department stores generally use so much space in the Friday issue because there are so many more goods bought on Saturday than on other days that I have to pay an extra price to get a good position for an advertisement in Friday's paper. That is the best evidence that department stores are firm believers in striking while the iron is hot; advertising while trade is coming.

Another man asked me if I believed in blotter advertising. "Certainly I do," I replied, "provided you use those blotters in a way that does you good, and provided that blotter advertising is not of a score of different ways of scattering your advertising appropriation; because I believe in concentrated advertising." A great deal of money is wasted in advertising in too many different ways. To spread a drop of syrup over a slice of bread, is to spoil the bread without imparting a taste of syrup. Concentration is one of the discoveries of the day in the realms of advertising.

I trust that this lesson will be as interesting to the readers as it was to the merchants who attended the meeting. I should be glad to go through the same kind of a heckling by letter if any subscriber cares to ask questions about his advertising.

According to an opinion of the attorney-general of Illinois, boards which collect fees and expend money in the State are working under a law which is unconstitutional.

March— Winds— Chaps—

CHAPPED, red, rough, cracked and inflamed skin is usually the result of exposure to the March winds. Such unpleasant conditions may not be entirely preventable, but they can be made less annoying. Perhaps we can help you, we have lotions, creams, powders and other preparations for the relief of all wintry skins, and to keep your complexion perfect in all kinds of weather

(Name and Address)

FOUNTAIN AND FREEZER.

Fancies, Facts and Formulas.

Secret formulas at the soda fountain are rare; this every dispenser knows. It is not formulas but quality and service that are the true secrets of success in the business. Soda water being essentially a luxury, the public demands better service and greater return for its money than would be the case if the beverage were a necessity.

QUALITY MORE DESIRABLE THAN QUANTITY.

The foundation of a paying soda business must be laid not so much in quantity as in quality. Soda water being a luxury, the desire for it must be created, and to this end the drinks must be tempting and the service the very best.

Economy, while a laudable quality ordinarily, is deplorable when practiced at the fountain in an endeavor to make one gallon of syrup do the work of two. A customer has been known many times to ask, "Why can't I get a drink like this at Blank's?" The dispenser knows the reason and it is no secret. It is because Blank practices false economy. Not only must good syrup and plenty of it be used, but soda water to "take" must be cold; the water must be highly charged with a good quality of gas; if plain cream is used (and it should be in all cream drinks, whether ice cream is added or not) it should be cream, not milk, perfectly sweet and cold. These things are absolutely necessary if the fountain is to be raised out of the commonplace.

POINTS WHICH MAKE FOR SUCCESS.

Among other points which figure largely in success at the fountain are the manner and appearance of the dispenser; absolute cleanliness about the fountain; thin glasses and clean ones. A well-made drink served with a tarnished spoon and in a discolored bent holder is labor lost. A soiled coat; fingers yellowed from the use of cigarettes, or with mourning bands at their extremities; an unshaven face; too much familiarity with the customer who is being served, or with friends around the fountain while serving a stranger, are among the things which a successful dispenser must avoid as he would the plague; for people, even those ordinarily rather unobservant, are almost sure to notice such shortcomings on his part. Cut flowers add greatly to the inviting appearance of any fountain; and a printed or typewritten menu, changed frequently, pleases many patrons.

THAT OLD ENEMY, THE FLY.

With the advent of warm weather the troublesome fly must be reckoned with. The electric fan is by far the best fly chasing contrivance. However, where a fan is not available or practicable, equal parts of oil of cedar and water, while not miscible, may be used with fair results. This mixture should be kept in a bottle with a sprinkler-top and be well shaken before use. A few drops shaken out here and there and wiped off with a damp cloth, leave an odor which, while not at all unpleasant, has been found partially to rid the fountain of flies.

There are a certain few drinks at the fountain that always will lead in popularity, yet the judicious use of some attractive names even when applied to old combinations will serve to catch the eye and arouse the curiosity of the customer.

LAUNCHING A SPECIALTY.

A certain druggist once hung a card, very neatly printed, near his fountain. The card read in large letters, "Don't turn me over." Some asked questions, a few were afraid of a joke, but a great many more turned the card over and read—

.....
: TRY A GOLDEN FLIP. :
: Adult size 15c. Children's size 10c. :
:
:

The question was asked "What is a 'golden flip'?" and the dispenser assured the customers—in this instance, college students—that it was a scientific combination, the result of many experiments. Did the drink sell? It surely did. At the end of a week more than two hundred had turned the card over and more than half of this number had tried the subtle combination. In a month the golden flip was an established beverage among the students, and competitors sought the formula and imitated it. Golden flip kept its popularity one whole season, and by that time there was another novelty to take its place. Golden flip had no

secret formula; its catchy name, the advertising it received, and its newness made it go. Here is the formula:

Golden Flip.

Chocolate-maple syrup.....	enough.
Malted milk.....	1 teaspoonful.
Milk	enough to shake.
Cracked ice.....	enough.
Water from the fine stream.....	14 ounces.

Draw the required amount of syrup, add the malted milk and ice, and a few ounces of milk. Shake well and fill the glass with the fine stream.

Chocolate-maple syrup consists of equal parts of chocolate syrup and pure maple syrup.

Golden Flip Cluck.

Make as above, with the addition of an egg.

Polar Flip.

This is a golden flip with ice cream in it.

Millionaire.

This is a combination of the golden flip, the egg, and the ice cream. It may seem quite formidable to the average soda drinker, but has no terrors for the usual run of college students.

Commissions to Stimulate Sales, and Other Trade-Helping Ideas.

Under the supervision of Frank E. Mintzer, in charge of the spacious fountain in the store at Twelfth and Chestnut streets, Philadelphia, there has been perfected a system of stimulating prompt and efficient service that has proved to be a big money-saver as well. Every member of the dispensing staff in addition to her salary—for all the dispensers are girls—at the end of the week receives a percentage of her receipts. The commissions are fixed and every girl knows that if her sales for the week reach a certain figure, say \$100, she will receive perhaps 5 per cent. on the increase over the minimum, which, for example, we will say is \$75. Should her sales exceed \$100, it may be that the commission will amount to 7 per cent. of the increase over \$100. Every dispenser deposits a slip in the cash register when she rings up her sale, and this slip contains the amount of her sale and her number, so it is an easy matter at the end of the week to total each individual's sales and estimate the extra commissions to which she is entitled.

The value of the system has been demonstrated in more prompt and efficient service, which has made it possible to reduce the working force to those who have demonstrated exceptional ability to dispense soda. Under this plan the employer readily tells just which dispensers are the drones; and customers are waited on with exceptional celerity, for each dispenser, who has her allotted space, not only wishes to wait on her customers quickly but wishes so to impress them that on their next visit they will give her another chance.

Mr. Mintzer has literally "hitched his wagon to a star" by taking advantage of the profuse advertising that greets the arrival of a theatrical celebrity in some popular production, and naming a new drink for the actor or actress in question. Whenever possible, he secures from the press agent of the star, a picture of the latter and has it copied for use on one or more display cards about the fountain or the window.

One of his recent creations along this line was the "Catharine McDonald Sundae," named for a well known actress who was a headliner at one of the leading theatres less than a block away. In addition to the name of the drink, neatly lettered signs about the store contained an attractive picture of the actress. Mr. Mintzer was just as original in making the sundae, and this is how he did it:

Catharine McDonald Sundae.

Cut an orange in two, take out the interior and crush it to a pulp; add shredded coconut and enough orange syrup to sweeten, and place in the lower half of the orange rind. Top with orange ice, replace the upper half of the rind, and serve. Collect 15 cents.

Virginia Marlowe, Olga Nethersole, Willie Collier and many others have helped with their names to give originality and popularity to Mr. Mintzer's inventions along these lines, and many little expressions of approval, both verbal and written, has he received in addition to the pictures which in many cases have been autographed by the originals who rarely fail to stop in at the fountain for the purpose of enjoying a drink named for them.

Good Soda Sells All the Year 'Round.

By A. O. GINTHER.

The soda water business has been closely identified with the drug store for so many years that fountains in other places are looked upon as more or less of an innovation. However, it is a lamentable fact that many druggists who have spent money to place fountains in their stores, feel that the transaction is complete, and, in many instances, complain that there is "no profit in soda water." Business goes only where it is invited, and it is no more reasonable to expect the soda water department to be on a paying basis without attention, than any other. It is a positive fact that if the druggist were to put as much effort behind his fountain as he does behind the small-profit sale of "patents," the result would be most gratifying.

The cardinal points are quality, cleanliness, uniformity, new ideas, and untiring effort to please. The review of the business for the last five years shows a wonderful increase, especially in the last two years, which is entirely due to the proper display of the goods offered for sale. Soda selling is a "luxury business," and it is only reasonable to claim that the more attractive the display, the larger the receipts. An attractive fountain, containing the sanitary features of modern construction, invites patronage. Cleanly clad dispensers, active, alive to the individual taste of the customers, create an indelible impression. Let the fountain be made a point of interest to the locality. "To-day's Special" should be a feature, and changed daily; the naming of drinks for those prominent in current events is a valuable point.

Let the druggist set apart a day, properly advertised, when a glass of soda water will be given with every purchase of a certain amount. This will bring many new customers to the store and at the same time acquaint them with the goodness of the service. Then he might set apart a day upon which the receipts of the fountain, less the actual cost of materials used, will be given to a church, lodge or some special charity, having no fixed price for the drinks served. This will prove a better advertisement than could be obtained through the old channel of circulars or local papers. The writer has knowledge of this plan netting the beneficiary over \$200 in a town of 3,000, as well as bringing new customers that very materially increased the druggist's year's total business. If there is a determined effort, the result will surely come. Some will say that this does not apply to the neighborhood store. It does. W. E. Sanders, Twelfth and Vine streets, Philadelphia, opened his fountain late in May, closing it always by October 1st, with a total season's business of \$260. After reasoning, he consented to put into practice the plan just mentioned, and his next season showed an increase of \$400. The second season, with his fountain running twelve months in the year, found his receipts \$1,230. So it is wholly up to the man behind the counter.

The general trade outlook for the coming year indicates a record-breaking season. The vast number of orders placed for new apparatus alone show that the dispensers are keenly alive to the possibilities and are grasping the opportunity, so it will behoove every dispenser to enter the season with the determination to have his share of the business instead of letting it go to the "man across the way." Every dispenser should make his customers feel that his service is as good as he knows it is. He should keep his fountain open the year 'round, as a customer who goes to another store for soda water will soon go there for everything else. He should not refuse to be convinced without one season's honest, earnest effort, and the result will please him so much that the effort will become a habit. Each druggist should resolve that he can do what others all around him are doing, and that he is not doing himself justice without using his utmost endeavor to make the return on his investment reach the maximum. The public wants soda water twelve months in the year, and will buy it from the man who invites business and treats it well when it comes.

The cashier or the clerk who receives the money should exercise care in handling change; dimes and "nickels" covered with syrup or even wet with water are distasteful to the customer.

Small details, and the attention which they receive, constitute the difference between a fountain-service that merely attracts casual customers and one which makes "repeaters" of those customers.

The Fountain as an Investment.

By C. C. WHITE.

One often hears a druggist say, "If I only had the room that fountain occupies."

Nine chances in ten the apparatus referred to is an old wall-box, in style "when father was a boy," presided over by any of the clerks who happens to be at leisure when an occasional customer drops in.

Not only are these old-style fountains left to take care of themselves, but a great many business (?) men every year accede to the popular demand and install a new "ice-less," front-service apparatus, but allow it to be run in the same old slipshod manner.

Now, the finest fountain ever built will not get the business unless some one with brains has charge of it. The day when a fifteen-year-old boy could manage a fountain is over. Just as surely as the march of time has made possible the wireless telegram and the aeroplane, just so surely must the business man change from the ways of his grandfather.

Millions are made each year in "nickels" and dimes, and when a man invests anywhere from \$1,200 to \$5,000 in apparatus and then puts it in charge of some youngster, good night to the investment!

The average department store fountain is a success. Why? Because the department store is an institution of today, with new principles and new methods, and with a first-class man at the head of each department, including the soda water department. The store manager will not take the first man who offers himself for the position of fountain chief, but is as careful in his selection as if he were choosing the manager of the biggest-paying department in the establishment. Therefore, at the head of the fountain in a department store, one usually finds a man with "get-up," ideas, originality, and, above all, years of experience. In other words, one who has worked and can make others work, while still retaining their friendship. Naturally to have acquired this experience such a man has been in the business several years, therefore is past his teens and will be looked up to by the employees under him.

A fountain manager should be allowed to hire his own help and buy his supplies, and be trusted with all the details of his department; he is at all times in close touch with the supply houses, and this mark of confidence gives him prestige with his assistants.

All supplies should be of the best obtainable. Ice cream, the most important of all stock, should be purchased from the concern recognized as the leader in its line. As a rule, the big ice cream companies have acquired their prestige through a high-grade article, well advertised, and a card conspicuously displayed to the effect that a fountain uses Blank ice cream will tend to couple the name of the fountain with the reputation and advertising of Blank.

Some of the wide-awake men are running their places along these lines, but the majority are not. From a financial standpoint there is as much reason for having an experienced man behind the soda counter as a registered drug clerk in the prescription department, and it is dollars to doughnuts that with a decent location and the right man behind the modern fountain, it won't be long before the soda receipts will make the prescription man a bit envious. The fountain is no longer a toy, and the old adage, "What is worth doing at all is worth doing well" applies to the soda business.

Where Quantity Counts.

In one of the smaller cities of Ohio a druggist reports that the Greek confectioners have almost run the drug stores out of the soda water business, although, he says, he notices that when anyone invites a stranger in town to have a glass of soda, he takes him into a drug store. The explanation is that the Greek gives quantity while the druggist strives for quality. This seems to negative much of the advice one reads in the journals, that the public demands quality rather than quantity.

After all, it depends much upon the quality of the people who drink the soda water—a large glass of sloppy stuff, cold and sweet, for 5 cents appeals to many, but there are many others who could not be paid to drink this kind of soda water but could be trained to patronize a high-class modern fountain if properly worked upon. And when the druggist gets these people coming to his fountain, many of the other kind will follow.

A Pittsburg Chain of Fountains.

Under the management of George W. Hughes, the May Drug Company conducts seven fountains at Pittsburg, Mr. Hughes, who is favorably known in high-grade fountain circles in this city, says that in order to maintain a high and uniform standard for his company's soda supplies, all syrups, ice cream, etc., are made in a central laboratory.

The seven fountains are subjected to a daily inspection, and cleanliness in every detail is insisted upon.

Having high-grade goods and cleanliness about the fountains, the next requirement is politeness on the part of the attendants. Upon these three things, to a great extent, at least, believes Mr. Hughes, success depends.

Continuing, this head dispenser says: "We have quite a long list of fancy drinks, ices, and creams, which vary in popularity and demand according to the location of the fountain. Our standby, as is the case with many other dealers, is chocolate, and to the manufacture of chocolate syrup I have given a good deal of thought and attention. The following formula increased our business in chocolate soda 100 per cent. the first year we used it:

Chocolate Syrup.

Cocoa	8 pounds.
Sugar	50 pounds.
Salt	1 teaspoonful.
Extract of vanilla.....	4 ounces.
Water	6 gallons.

"Make a paste of the cocoa with a portion of the water, then add the balance of the water in which the salt has been dissolved; bring to a boil, add the sugar, and again bring to a boil. When the syrup is cold, add the extract of vanilla.

"The result is 10 gallons of good chocolate syrup, provided good cocoa is used—and a really good article of cocoa is not inexpensive, although I have always found it cheap. This syrup dispensed with plain cream or ice cream makes a very evenly balanced drink."

Mr. Hughes contributes a formula for another concoction which he says is a "winner, especially between seasons." It follows:

Bisque Pudding.

Egg	1 only.
Cream (30%).....	1 quart.
Almond paste.....	4 ounces.
Powdered sugar.....	3 ounces.
Extract of vanilla.....	a few drops.

Mix the almond paste with enough of the cream to produce a thin, smooth paste; then add the sugar, the egg, and the extract of vanilla; rub all together until smooth, add the balance of the cream, and whip until stiff (just as cream is whipped). Put in individual paper cups; sprinkle with ground burnt almonds; and freeze in an ordinary freezer.

These, he says, can be made in as small a quantity as desired, are easy to make and keep, and sell well at 15 cents each—although there is profit in them at a dime.

Fancy Drinks Under Difficulties.

Perhaps it would be just as well not to mention the name of the clerk who writes the following, as it might bring him into disfavor with "the boss":

"For the last three years I have been employed by druggists who have fountains to which they fail to give the proper attention. Furthermore, they do not permit anyone else to give them this kind of attention. My present employer is what might be termed a conservative in matters pertaining to the soda water art, and allows one of his best assets to lie almost idle. I have tried to serve some of the fancy beverages and dishes I have read about in the journals, but he doesn't seem to favor the idea, so I have learned not to bother, except when some of my special friends come in. On such occasions I have made a hit with the following, which is not original with me:

Banana Canoe.

"Peel a banana and split it in two lengthwise; place the two halves side by side on a long narrow dish, and across these, to represent seats in a boat, place two long, thin wafers; near each wafer drop a ladleful of ice cream, and cap each with a cherry.

"For this charge 15 cents."

Here are a few blends for phosphates: grape and orange syrup; cherry and pineapple; grape juice and sliced oranges.

For the "Front Page."

Of all the "preferred positions" in the drug-store advertising world the show window is the gilt-embossed, four-color, front-cover page of the "deluxiest" brochure de luxe—and it can be had in "every issue" at a very low figure. But, in the name of Mercury, famed for his variety of aspects, do not use the same "copy" the year 'round. Just for luck try this set-up for the middle of March:

Cover the window floor with an undulating layer of sawdust dyed to a dead-grass-brown color, with here and there a touch of early spring greenness, and a few traces of snow in the hollows. Sinuously crossing one corner of the landscape let there be a mirror "streamlet" with an edging of magnesium sulphate ice. From lower left to upper right trace out a highway with wet sand, having the road cross the stream on a rustic bridge. Somewhere in the distance plant a solitary gray leafless tree. About two-thirds the way up the road set up a doll-house with a tie rail and horse block before it. Let there swing out from a post before the door a tavern sign designating that 'tis the "Bubbling Urn" that stands by the high-road proffering rest and refreshment to man or beast. A coach and four and a few equestrians upon the road will add to the picturesqueness. Hang on the side wall and as a background a cloth painted with a mixture of acacia, water, chalk, and pigment in the washed-out-blue color of the March sky, flecking the firmament with streaks of gray cloud to enhance the effect of bleakness. Tell to the passer-by, on properly placed placards a few things like these:

March becomes May after a cup of
our hot soda.

At the Sign of the Bubbling Urn
chilliness takes flight.

The breath of the March lion is
tempered by our soda.

Properly made, a display of this kind ought to draw customers to a hot fountain—enough of them to pay for taking pains with the display.



Driving Them Away.

Baltimore Bowlers Drink Soda.

Well within the memory of present-day bowlers, gymnasts and athletes, generally a bowling alley or gymnasium was considered incomplete without an annex for the sale of more or less alcoholic beverages. Of late years, however, a great change has come over the situation, and it is easy to foresee the time when bowling alleys and bar rooms will be entirely divorced. A sweeping modification of views with respect to sports and drinking has taken place, and it is now generally recognized that the competitor in a game of any kind is seriously handicapped when he proceeds to fortify himself with a "bracer."

A BOWLING ALLEY FOUNTAIN.

There are far more bowling alleys in Baltimore to be counted among the total abstinence resorts than are connected with saloons, and the prevailing sentiment now is that the use of alcohol is not only valueless but decidedly detrimental in competitions of physical dexterity or strength. The combination now frequently encountered is a bowling alley and a soda fountain. At one of the most extensively patronized bowling alleys in the Monumental City, where a score or more teams bowl at one time, there is a fountain, which, while rather plain in appearance, is attractive. The chief dispenser at this place is a young man with a fondness for the work, who has made a careful study of the business, with whom the mixing of beverages is an exact science. His knowledge insures uniformity and just the right flavor or touch, to the drinks that he turns out, and is also conducive to the development of novelties.

WHAT BOWLERS DRINK.

The experience of this dispenser, however, is that the great majority of patrons of bowling alleys are rather indifferent to novelties. They cultivate a taste for some familiar beverages and then stick to them, seldom varying the call. As might be expected, so-called "tonics" are very popular with the bowlers, who demand no fancy frills, preferring to be quickly served.

Next in order come the egg drinks. These drinks do not depart from the ordinary run of such conceits, the mixtures used being in the main those which experience has shown to be easily compounded, and which unite food value with an agreeable flavor. The management does not find it difficult to get 15 cents for these egg drinks, which are prepared with malted milk, with soda water, and in a variety of other combinations.

Next to the "tonics" and egg drinks, the masculine fancy runs to chocolate, plain and with cream, hot or cold. Perhaps no other flavor enjoys such general popularity as chocolate, drinks into which it enters having quality that makes them acceptable to all kinds and conditions of patrons. And in this connection it may be noted that chocolate with ice cream is relished in winter not less than hot chocolate. Every soda water dispenser in Baltimore will probably bear testimony to the correctness of the statement that while the demand for hot drinks in winter is undoubtedly on the increase, the gains in the calls for cold drinks are proportionately greater. It seems a contradiction to assert that the devotees of bowling and other pastimes are addicted to cold drinks, but such is the case, and the observation can be verified even in ice-skating rinks, where the surroundings would naturally seem to encourage a desire for something warm. Singularly enough, the requests for coffee are not so numerous as might be supposed. Apparently, coffee is a thing that everyone unconsciously connects with eating and drinking at home, so that when anywhere else the desire for something different instinctively asserts itself.

THE DISPENSER AS A PSYCHOLOGIST.

The resourceful and intelligent dispenser, of course, makes a careful study of the preferences of his customers. He must have a real love for the business if he is to be conspicuously or even modestly successful. It will not do, says the manager of the large bowling alley, merely to put a young man at the fountain and tell him to draw glasses of soda as requested, but the very manner in which he does it increases his value or detracts therefrom. The dispenser must be, in a way, a student of human nature, to be able, if the bulk of the custom be among men, to enter into a man's feelings, and without seeming to do so, suggest to the caller in numerous instances what he wants. To be sure, some patrons are quick to resent anything that can be even remotely construed as savoring of tutelage, but a large proportion of drinkers are grateful for a hint which

relieves them of the trouble of choosing between a variety of concoctions.

AS TO FRESH EGGS, AND THE OTHER KIND.

It goes without saying, of course, that the materials must be good, the surroundings inviting and the processes above suspicion. It is the unvarying practice of some dispensers to break each egg used in full sight of their customer. This inspires confidence in the quality of the soda generally, and in the egg especially. It will not do to pin soda fountain reputations to storage eggs, but the "fruit of the hen" must be gathered in the poultry yard and transferred to the fountain without undue delay. The price of such eggs will be somewhat higher than that of others, but a dispenser with a valuable trade will unhesitatingly conclude—to say nothing of the flavor—that assurance is worth the difference.

The dispenser at the bowling alley, being somewhat in a reminiscent mood, said: "When I am off I sometimes go around to other places and see how they do things. One day I happened to go into a drug store and call for an egg drink, and the man behind the counter broke not less than four eggs before he struck a good one. What do you suppose was my impression of that place, and with what emotions did I imbibe the drink? Such an experience is enough to kill all further relish for egg drinks, or any other, for that matter, in that particular place."

S O D A

JUST as good in March
as any other time—the
luscious, pleasing soda
drinks that you have always
fancied. The purest fruit
juices, the snappiest car-
bonated water, mixed and
served right. Ice cream
sundaes, ice cream soda. If
thoughts of cold soda make
you shiver, we have de-
licious hot soda: Chocolate,
bouillons, and many fancy
conceits. All pure, piping
hot, mightily pleasing cold-
day drinks.

(Name and address)

Some More Federal Allegations of Sophistications.

Since the publication of the list of notices of judgment under the food and drugs act of June 30th, 1906, in last month's CIRCULAR, page 100, the following of possible interest to druggists have been issued by the federal authorities:

Olive Oil.—George P. Calogera, of this city, shipped in interstate commerce a quantity of a food product labeled "Extra Superfine Olive Oil. Mannis Olive Oil. Imported and packed by G. P. Calogera, N. Y., U. S. A." Samples analyzed by the government chemists were reported to be adulterated with cottonseed oil. A libel was filed in the United States court for the northern district of Georgia wherein it was alleged that the product was adulterated and misbranded. No answers having been received to the allegations and no claims being made to the goods, they were declared forfeited to the United States and sold at public auction.

A. Fiore, doing business as A. Fiore & Co., of this city, shipped in interstate commerce a food product labeled "Olio Sopraffino, Stella Brand Olive Oil and Salad Oil—A Blend. Stella Brand Olio. The contents of this can comprise a compound of olive oil and a specially refined product of salad oil pressed from cottonseed, canned in conformity with the Pure Food Law of the United States. Sopraffino." Samples were analyzed by the bureau of chemistry and the result was that proceedings were instituted in the United States court for the southern district of New York alleging that the product was misbranded in that the label would tend to deceive the purchaser into thinking that the product was Italian olive oil, whereas it contained 75 per cent. of cottonseed oil. The defendant entered a plea of guilty and a fine of \$10 was imposed by the court.

A quantity of a product labeled "Olio Per Insalata Sopraffino Melillo Brand, Compound Olive Oil and Cotton Salad Oil. Serial No. 9663," was shipped in interstate commerce by Marchesini Brothers, of this city. Samples analyzed by the bureau of chemistry were declared to be misbranded and proceedings were instituted in the United States court for the southern district of New York, it being alleged that the product was misbranded in that it was labeled so as to deceive the purchaser into thinking the product other than what it was, a mixture manufactured in this country. The defendants entered a plea of guilty and were sentenced to pay a fine of \$100.

Extract of Vanilla.—R. C. Williams & Co., of this city, shipped in interstate commerce a food product labeled "Slightly Colored with Burnt Sugar. Berwick XXX Pure Flavoring Extracts Vanilla. Manufactured by R. C. Williams & Co., 56, 58 and 60 Hudson St., New York." Samples were analyzed by the government chemists whose reports indicated that the product was misbranded within the meaning of the act. A plea of guilty was entered in the United States court for the southern district of New York to the charge of misbranding, which was based on the allegation that the purchaser would be misled by the label into believing that the product was an extract of vanilla whereas it was a diluted extract artificially colored to conceal its inferiority. The defendant plead guilty, and a fine of \$25 was imposed.

A product labeled "Williams Brand Flavoring Extract of Pure Vanilla, Guaranteed under the Food and Drugs Act of June 30, 1906. Distributors, Williams Bros. Company, Cleveland, Ohio," was shipped in interstate commerce by the Hall-Whitney Manufacturing Company, of Binghamton, N. Y. The bureau of chemistry reported that samples taken from the shipment and analyzed were adulterated. Proceedings were instituted in the United States court for the northern district of New York alleging misbranding and adulteration in that the product contained vanillin and caramel which fact was not stated on the label which represented the product to be a pure extract of vanilla. The defendants entered a plea of guilty and a fine of \$100 was imposed by the court.

The Semrad Chemical Company, of Chicago, Ill., sold to Habrecht, Braun & Co., of the same city, a quantity of a food product labeled "Hy-Grade Vanille-Ton." "A pure vanilla and tonka bean powder especially adapted for bakers. Absolutely Pure. Absolutely free from alcohol. Absolutely free from all other flavoring matters. In full compliance with all pure food laws. Habrecht, Braun & Com-

pany, Chicago, New York." With the delivery of the goods the company furnished a guaranty in writing that its product fully complied with the requirements of the food and drugs act. The Habrecht-Braun Company shipped the goods in interstate commerce. Samples taken from this shipment were reported by the government chemists to be adulterated. Criminal information was filed against the Semrad Chemical Company, charging that vanillin had been substituted wholly or in part for powdered vanilla and tonka in order to imitate the genuine product, and this fact was not stated upon the label. The United States court for the northern district of Illinois sentenced the defendant to pay a fine of \$100 and costs on a plea of guilty.

The Allan B. Wrisley Company, of Chicago, Ill., shipped in interstate commerce a consignment of a food product labeled "Bannon's Best Vanilla Flavor, containing vanillin and coumarin, artificially colored, Mfgd. by Allan B. Wrisley Company for Bannon & Company, St. Paul, Minn., for flavoring pies, cakes, creams, custards, puddings, etc." Samples of this product were analyzed in the bureau of chemistry. Upon the findings was based a criminal information filed in the United States court for the northern district of Illinois, charging that the preparation was adulterated and misbranded in that it was wholly or in part a solution of vanillin, coumarin and alcohol colored with caramel to conceal the sophistication, and offered as a vanilla extract. The defendant entered a plea of guilty and was sentenced to pay a fine of \$100 and costs on this charge and a joined one relative to lemon extract (see below).

Extract of Lemon.—A food product shipped in interstate commerce by Simon Ullmann and Samuel Dreifus, doing business under the firm name of Ullman, Dreifus & Co., of Cincinnati, Ohio, was labeled (on the carton) "King B Concentrated Extract of Pure, Imitation, Lemon. From the Laboratory of Ullmann, Dreifus & Co., Cincinnati, Ohio. For flavoring ice-cream, soda water, custard, cakes, jellies, confections, etc. The delicious flavor possessed by King B Concentrated Extracts is due to the excellence of the material used, and to the great care with which they are prepared"; (on the bottle) "King B Compound citral and lemon, Colored, manufactured by Ullmann, Dreifus & Co., Cincinnati, O." A sample was analyzed in the government laboratory, and proceedings were brought in the United States court for the southern district of Ohio in which it was alleged that the product was adulterated and misbranded in that it did not contain any oil of lemon and only a trace of citral, and that the label tended to mislead the purchaser into thinking that the product was an imitation extract of lemon whereas it was practically useless as a flavor. The defendant entered a plea of nolo contendere and the court imposed a fine of \$25 and costs.

A plea of guilty was entered in the United States court for the southern district of New York, by the Crandall Pettee Company, of this city, to the charge of violating the law by shipping in interstate commerce a quantity of a product labeled "The Crandall Pettee Company. All lemon compound put up especially for bakers' use. Of unusual sweetness and purity. Better than lemon oil because it needs not to be cut or reduced. Better than lemon extract because it will not bake out in the oven. For sale only by Crandall Pettee Company, 40-42 Renwick Street, New York City." In the suit it was alleged that the product was misbranded in that the label tended to deceive the purchaser into the belief that it was oil of lemon, whereas the government chemists reported that it contained nearly 80 per cent. of oil of sesame. A fine of \$5 was imposed by the court.

The Allan B. Wrisley Company, of Chicago, Ill., shipped in interstate commerce a food product labeled "Union Brand Compound Lemon Flavoring. A compound prepared from oil of lemon grass, citral and diluted alcohol." Samples from this shipment analyzed by government chemists and their reports indicated that the product was adulterated and misbranded. Proceedings were instituted in the United States court for the northern district of Illinois; and it was alleged that the product contained no oil of lemon and was an imitation flavor colored with a dye known as naphthol yellow S. The defendant plead guilty and a fine of \$100 with costs was imposed.

This same concern shipped in interstate commerce a product labeled "Bannon's Best Terpeneless Lemon Flavor 0.075 per cent. natural citral, artificially colored, Mfgd. By Allan B. Wrisley Company, for Bannon & Company, St. Paul, Minn. For flavoring pies, cakes, creams, custards, puddings, etc." It was deemed evident from an examina-

tion of samples of this consignment that the product was adulterated and misbranded. A criminal information was filed in the United States court for the northern district of Illinois setting forth the allegations that the product was wholly or in part an imitation terpeneless extract of lemon, being a solution containing 0.08 per cent. of citral and colored with naphthol yellow S; and that the manner of labeling it was deceptive. This proceeding was joined with one having to do with extract of vanilla, and the defendant plead guilty and was penalized as reported above.

In a consignment of food products shipped in interstate commerce by the Semrad Chemical Company, of Chicago, Ill., were a number of bottles labeled variously in the following manner: (1) "Extract Lemon Bakers', Solution Terpeneless Citral." (2) "Extract Lemon XXX, Soluble Terpeneless." (3) "Extract Lemon, Soluble, Terpeneless." (4) "True Lemon Flavor, Soluble Terpeneless." (5) "Lemon Flavor with Peels, Soluble Terpeneless." Samples of these several products were analyzed by the bureau of chemistry and as a result a criminal information was filed in the United States court for the northern district of Illinois. The allegations were that product 1 was a very dilute terpeneless extract of lemon containing only 0.04 per cent. of citral and practically no oil of lemon; that 2 and 3 were similar products, each containing only 0.135 per cent. of citral and practically no oil of lemon; that 4 contained but 0.1 per cent. of citral and practically no oil of lemon; and that 5 contained only 0.125 per cent. of citral and practically no oil of lemon. A charge of adulteration and misbranding was made, there being eight counts, including three having to do with extract of orange (see below). The defendant entered a plea of guilty and was sentenced to pay a fine of \$100 and costs.

Extract of Orange.—In the consignment of food products referred to in the preceding paragraph were three varieties of a so-called terpeneless extract of orange labeled respectively (1) "Extract Orange, Soluble Terpeneless." (2) "True Orange Flavor, Soluble Terpeneless." (3) "Orange Flavor with Peels, Soluble Terpeneless." Samples of these were analyzed by government chemists and subsequently information was filed in the United States court for the northern district of Illinois charging the shipper, the Semrad Chemical Company, of Chicago, Ill., with a violation of the act because, it was alleged, product 1 was a dilute terpeneless extract of orange containing only 0.075 per cent. of citral and practically no oil of orange; and that products 2 and 3 were similar preparations containing respectively 0.058 and 0.059 per cent. of citral and practically no oil of orange. The defendant plead guilty and was penalized as stated in the foregoing paragraph.

"Sherman's Headache Cure."—Orator F. Woodward, of Le Roy, N. Y., shipped in interstate commerce a drug product labeled "Sherman's Headache Cure, Trade Mark Registered in U. S. Patent Office; with other valuable ingredients, each capsule contains 2 grains of acetanilid, prepared for Orator F. Woodward, Le Roy, N. Y. See directions on bottle inside. Sherman's Headache Cure, Guaranteed under the Food and Drugs Act, June 30th, 1906, No. 95. Sherman's Headache Cure is for sick or nervous headache, neuralgia and sleeplessness." From the findings of the analysts who examined samples of this product it was charged in an action brought in the United States court for the western district of New York, that the product was misbranded in that the label was misleading because the preparation was not a cure for headache, etc. The defendant entered a plea of guilty and was fined \$25.

"Stanley's Instant Headache Cure."—Stanley K. Pierson, of Le Roy, N. Y., shipped in interstate commerce a drug product labeled "Stanley's Instant Headache cure for Headache in all its forms, neuralgic, rheumatic, grippe, muscular pains of malaria and disordered stomach and in all cases where speedy and pleasant relief from pain is desired. Price 10 cents. Prepared by Stanley K. Pierson, Le Roy, N. Y. Each tablet contains 2 3/4 grs. ascetenoid," etc. Samples were analyzed by the bureau of chemistry and declared to be misbranded because the label bore false claims of therapeutic worth, and a vague statement of the presence of acetanilide. Criminal information was filed in the United States court for the western district of New York; the defendant entered a plea of guilty, and the court imposed a fine of \$25.

"Break-Up-the-Grip Tablets."—A drug product was shipped in interstate commerce by John D. Langham, of Holley, N. Y., with the label: "Break-Up-the-Grip Tablets. for la grippe, colds, headache, all forms of neuralgia, rheu-

matic and malarial pains, price 25 cents. Manufactured by J. D. Langham, Holley, N. Y. The great laxative grippe cure; cures colds and grippe in one day. We claim these tablets to be the best in the world for la grippe, colds, headaches, and all pains and fevers where pleasant and speedy relief is desired. They leave no depressing results so common to most remedies now on the market, which are recommended for these complaints." On the end of the containers there were stamped in small, indistinct type by means of a rubber stamp: "Each tablet contains 2 grs. acetanilid." Samples were analyzed by the government chemists and from their findings proceedings were instituted in the United States court for the western district of New York charging that the product was misbranded in that the statements of curative properties, appearing on the labels were false and misleading. A plea of not guilty was first entered by the defendant, who subsequently substituted a plea of guilty. The court imposed a fine of \$25.

"Cactico Hair Grower."—Mrs. Gervaise Graham, of Chicago, Ill., shipped in interstate commerce a drug product labeled (on bottle) "Mrs. Gervaise Graham's Cactico Hair Grower. Will produce hair on bald Heads. Stops falling of the hair, keeps the scalp healthy." (Blown in side of bottle) "Mrs. Graham's preparations are pure and harmless. Mrs. Gervaise Graham, Beauty Doctor, Chicago and San Francisco." (On carton) "Mrs. Gervaise Graham, Cactico Hair Grower, 5 per cent. alcohol, and manufacturer of celebrated cosmetics, Chicago, Illinois. For sale by all leading druggists." Samples of this product were examined by the bureau of chemistry and reported to contain alcohol, 4.38 per cent. by weight (5.58 per cent. by volume); borax, 0.35 per cent.; glycerin, 6.79 per cent.; water, 88.49 per cent.; and capsicum. Criminal information was filed in the United States court for the northern district of Illinois, alleging misbranding because the statements on the label about the hair-growing property of the product were false and misleading. The defendant plead guilty and was sentenced to pay a fine of \$50 and the costs.

"Cures" for Drug Habit.—W. A. Starnes, of Atlanta, Ga., shipped in interstate commerce two lots of an alleged cure for drug habits. One of these lots consisted of twelve bottles numbered consecutively from 1 to 12, the bottle numbered 1 being labeled "Inman Park Pharmacy, J. F. Kern, Prop., 589 Kirkwood Ave., Atlanta, Ga., 2 or three teaspoonfuls with water 3 or 4 times a day each bottle in succession. Shake bottle before use," no label except the respective numbers appearing on the remaining eleven bottles. The second lot consisted of ten bottles numbered consecutively from 1 to 10, the first bottle being labeled "Open all night. Elkins-Watson Drug Co., Cor. Marietta and Peachtree sts., Atlanta, Georgia. 2 or 3 teaspoonfuls 3 or 4 times a day. Take each bottle in succession. Shake bottle. Merck's chemicals and Squibb's preparations used in dispensing." The remaining bottles bore no label except the numbers. From the reported findings of the government chemists who analyzed the products proceedings were instituted in the United States court for the northern district of Georgia charging the shipper with an infraction of the law because the product in question was misbranded in that the morphine present in the several mixtures was not declared on the labels. The defendant plead guilty and was sentenced to pay a fine of \$25.

W. J. Tucker, of Atlanta, Ga., shipped in interstate commerce a drug product labeled "Dr. W. J. Tucker, 43 1/2 Whitehall Street, Atlanta, Ga. Prepared exclusively for L. F. Kay. Take a teaspoonful in water 3 times a day. Make each bottle last a week or more." Samples were analyzed by government chemists and subsequently suit was brought in the United States court for the northern district of Georgia alleging that the product was misbranded in that it contained morphine and alcohol, which fact was not stated on the label. On a plea of guilty the court imposed a fine of \$25.

Tincture Cadomene Concentrated Compound, Compound Fluid Balmwort, and Compound Essence of Cardiol.—A consignment of eight casks of drug products was shipped from Detroit, Mich., to Dayton, O., labeled "Prescription Products Co., Dayton, Ohio, P. D. Co.," four casks bore, in addition, "S. 59884," one "S 56527," one "S 59736," and two "S 61015," the first five packages containing a product marketed as "Tincture Cadomene Concentrated Compound," the one next mentioned containing a product marketed as "Compound Fluid Balmwort" and the two packages last mentioned containing a product marketed as "Compound Essence of Cardiol." On analyses of samples by the bureau

of chemistry the products were alleged to be misbranded, and a libel was filed in the United States court for the southern district of Ohio charging misbranding in that none of the containers were labeled to indicate the alcoholic content of the preparations. The Prescription Products Company filed its claim to the goods averring that it was in possession of the products at the time of seizure and was the bona fide owner; and subsequently filed a demurrer setting forth that the court was without jurisdiction in that no seizure of the goods had been made prior to the filing of the libel; that the libel was not properly verified by any person having knowledge of the facts; that it did not appear from the averments that the goods were still subject to the provisions of the act in said libel; and that the libellant had not stated a case that had any application to shipments of this character. After hearing argument of counsel the court sustained the demurrer on all of the grounds, and the goods were released from the custody of the marshal.

Oil of Turpentine.—A consignment of a drug product labeled "Pure Spirits of Turpentine" was shipped in interstate commerce by the United States Turpentine and Linseed Oil Company, of this city. The consignment was sampled by government inspectors and after analysis by the bureau of chemistry was reported to be adulterated and misbranded in that it contained a large amount of mineral oil. A libel based on this report was filed in the United States court for the district of Connecticut, which issued a decree ordering the marshal of the district to destroy the product unless prior to a given date the company should pay the costs of the proceedings and file a bond in the sum of \$100 conditioning that the product should not be disposed of contrary to the law.

Ice Cream Cones and Ice Cream Clams.—In April, 1910, there were shipped in interstate commerce five packages of ice cream cones each labeled "Consolidated Ice Cream Cones—16—Wafer Company, Inc., Brooklyn, N. Y., U. S. A. Sole Manufacturers Consolidated Wafer Co., Brooklyn, N. Y., U. S. A.," and "The Brooklyn Ice Cream Cone Manufactured by Consolidated Wafer Co., Inc.," and thirty-five packages of ice cream clams, each package of which was labeled "Consolidated Wafer Co., Incorporated. Manufacturers of high grade Ice Cream Clams. Very tasty clams. Ice Cream Novelties." Upon the examination of samples by the bureau of chemistry the products were declared to be adulterated in that they contained boric acid and salts thereof. A libel was filed in the United States court for the eastern district of Pennsylvania alleging that the products had been shipped in violation of the law. No claimant appeared when the case came up for hearing, and the court decreed the destruction of the lot.

A consignment of a product shipped in interstate commerce from Brooklyn, N. Y., and labeled "Sole Manufacturers. The Valvona Marchiony Co. Cones, Brooklyn Borough, New York." "The Valvona Marchiony Co., Manufacturers of Wafers and Wafer Cup Specialties, Brooklyn, N. Y." "Ice Cream Cones. We guarantee that these products which are manufactured and sold by us are not misbranded within the meaning of the Food and Drugs Act of June 30, 1906. The Valvona Marchiony Co." It appeared from the findings of the government chemists that the product was adulterated with boric acid and salts thereof, and suit was instituted in the United States court for the eastern district of Pennsylvania. No claimant appearing to defend the libel the court decreed the destruction of the libeled cones.

The Star Wafer Company, of Oklahoma City, Okla., shipped in interstate commerce a quantity of product labeled "Ice Cream Cones. Star Wafer Co. Factories Oklahoma City, Birmingham, Jacksonville, Dallas, El Paso, Los Angeles. General Offices, Oklahoma City, Okla. Each cone sweetened with less than 1/60 grain saccharin." Examination of samples of this product by the bureau of chemistry was alleged to show it to be adulterated. Proceedings were instituted in the United States court for the district of Nebraska in which it was alleged that the product was adulterated because containing boric acid. No claimant appearing to answer the libel the court decreed the destruction of the cones.

Calcium Acid Phosphate.—A product labeled "Provident Chemical Works, 300 lbs. C. A. P. St. Louis. Serial No. 381. P. C. W. New York," was shipped in interstate commerce. Samples were taken and analyzed by the bureau of chemistry. As a result a criminal information was filed in the United States court for the district of Massachu-

setts in which it was alleged that the product was adulterated in that it contained a considerable amount of starch. Later an amendment to the libel was filed adding the charge of misbranding because the labeling "C. A. P." would convey the impression that the product was calcium acid phosphate whereas it was not entirely so. The product was claimed by the Provident Chemical Company, who denied the charge of adulteration, but admitted that the product was misbranded. The court ordered that the product be delivered to the claimant upon the payment of the costs of the suit and the filing of a bond conditioning that the goods would not be disposed of contrary to the law.

Some Fakes Exposed.

Continuing its good work of laying bare the falsity of many claims made by fakers in the field of medicine, the *Journal of the American Medical Association* gives some information which is presented in abstract below:

DR. BRANAMAN REMEDY COMPANY.

Details of federal investigation of a mail-order "deafness cure" concern are presented. The concern in question is the Dr. Branaman Remedy Company, of Kansas City, Mo., which was conducted by G. M. Branaman, M. D., a graduate of the medical department of the University of Louisville, 1891. Branaman obtained victims by advertising to cure deafness and offered to send "two months' medicine free" to those who applied. His method was, on receiving a letter from a prospective patient, to send the usual "symptom blank" and ask that it be filled out and returned to him. When this was done the patient was informed that his case was far too serious to be treated merely by medicines and that what he needed was the "electro-magnetic headcap," which Branaman would furnish, with medicines, for the sum of \$8. If the money was not sent the patient received a series of "follow-up" form letters that were made to simulate personal communications, each letter urging the purchase of the "headcap." If the amount was paid the "headcap" was sent, together with some simple remedies. The post-office inspectors entered into correspondence with Branaman as supposed patients and filled out five symptom blanks, describing therein five cases of total and incurable deafness. Branaman promised to cure each of the hypothetical patients and urged each to send \$8 for the "headcap" and medicines. It was proved that Branaman was publishing a testimonial from a man who was so deaf that he was unable to work, as one having "perfect hearing" since he used Branaman's remedies. It was also shown that, while Branaman represented that he gave individual treatment and attention to every patient, as a matter of fact the same "treatment" was sent to practically all persons sending the necessary \$8. As a result of the inquiry the delivery of mail and the payment of money-orders was prohibited to both G. M. Branaman and to the Dr. Branaman Remedy Company.

OXYDONOR; OXYGENOR; OXYGENATOR.

Three mechanical frauds—the "oxydonor," the "oxygenor" and the "oxygenator"—are discussed. The oxydonor, the oldest of the three and the most widely advertised, is a modification of an earlier fake known as the *electropoise*. The essential parts of all are (1) a metallic cylinder, (2) one or more flexible cords or wires, and (3) disks to be attached to the ankle or wrist of the individuals who use them. Some of these pieces of nickel-plated piping are filled with a mixture of sand and sulphur, others have a stick of plain carbon in them, while the *electropoise* was empty. Their price varies from \$10 to \$35, and they are claimed to cure every known disease. The advice given by the exploiters of the "oxygenator" is particularly vicious, as people are urged to rely on this piece of gas-pipe for the cure of diphtheria in children. The *Journal* says that the "electropoise," the "oxydonor," the "oxygenor" and the "oxygenator" are utterly worthless, aside from the element of suggestion—except as a means of enriching their exploiters.

RADIO-SULPHO CANCER "CURE."

Another cancer cure humbug is briefly described. Radio-sulpho, as the "cure" is named, emanates from Denver. It was examined by the official chemists of Colorado, who reported that it consists of a strongly alkaline solution of sodium sulphide with a little sodium carbonate. The exploiters of this bad-smelling compound recommend the use

of a "cheese poultice" in connection with their nostrum. The poultice is to be made by mixing Limburger cheese and glycerin to the consistency of a paste and applying the mixture to the cancer after having washed the parts with "radio-sulpho." The cost of this odoriferous fake is \$25 a month "and upward."

Consumption "Cures" Scored.

In an address on "The Advertised Cures for Tuberculosis" Dr. Lyman F. Kebler, of the federal department of agriculture, severely scored the manufacturers of this class of nostrums at a meeting held in the interest of the public health at Baltimore, February 8th. The speaker charged that the so-called consumption "cures" not only did no good, but wrought a vast deal of harm in that they caused the misguided patients to lose valuable time in placing themselves under competent care, the nostrums in question also dulling the vital forces and lessening the chances of recovery. These medicines, he said, often contain nothing at all which could assist recovery, but have as large a proportion of narcotics as the law allows, or a percentage of alcohol which made them nothing more than disguised beverages. Dr. Kebler went on to say that he for more than a year had studied the composition of the nostrums, the manufacturers of which asserted through advertisements that they would cure consumption in a short time. He had found that the medicines would not cure, but in numerous cases caused the afflicted persons to become addicted to the use of narcotics.

Dr. Kebler referred also to the advertised "soothing" syrups for children and said that these preparations served merely to make the brain sluggish and impair the vital powers, checking development and wrecking the constitutions of the little ones. Ignorant mothers encouraged by statements that such articles were good for the child, and "perfectly harmless," "a pure vegetable compound," dosed their children and laid the foundation for lives of misery. Dr. Kebler blamed the newspapers for publishing the advertisements of the nostrum "fakers," and also took to task some of the medical publications, which, he declared, were not free from such things. Even some doctors, he said, would prescribe secret remedies, without stopping to inquire if they were desirable things to give.

Dr. Kebler pointed out that, as under pure food and drugs laws the content of narcotics, alcohol, etc., must be stated on the label, all persons should read what a compound contains and refuse preparations that are merely "dope." He urged that every one insist on being informed as to what he is getting.

Canadian Association and Prescription Pricing.

At the 1910 meeting of the Canadian Pharmaceutical Association, after J. E. Tremble, of Montreal, Que., had read a paper on "Prescription Prices," the association voted to recommend to the druggists of the Dominion, the following scale of prices for ordinary prescriptions:

Mixtures, 8 ounce.....	\$1.00
Mixtures, 6 ounce.....	.75
Mixtures, 4 ounce.....	.65
Mixtures, 3 ounce.....	.50
Mixtures, 2 ounce.....	.40
Mixtures, 1 ounce.....	.25
Mixtures, 4 dram.....	.25
Pills, ready-made, 1 dozen.....	.25
Pills, hand-made, 1 dozen.....	.50
Capsules, 1 dozen.....	.50
Konseals, 1 dozen.....	.50
Suppositories, 1 dozen.....	1.00
Ointments, 1/2 ounce.....	.50
Ointments, 2 ounce.....	.75

Dispensing Fees in Austria.

A new and slightly higher, Arzneitaxe (pharmaceutical price list) has become operative in Austria. The fees which the pharmacists are allowed to charge for dispensing manipulations are as follows:

For each act of dispensing a charge of 20 hellers (4 cents) must be made; for each mixing of liquids or ointments, double that amount; for dividing a substance into ten powders, at least 50 hellers (10 cents); and as much for each infusion; for all other manipulations, including the boiling of substances and the making of any number of pills up to 100, 80 hellers (16 cents). For the weighing of amounts above 1 centigram a slight additional tax is charged, and for smaller quantities than that, the additional tax is doubled.

Revising the Pharmacopœia.

While it is a little early yet to say much about what the ninth decennial revision of the United States Pharmacopœia is to be, it may be stated authoritatively that work on it is progressing rapidly and that, barring accidents and unforeseen complications, the new book will be on the press before the expiration of half the time it took to get its immediate predecessor ready for the printer. One reason for this is the fact that actual work on the text of the eighth revision did not begin until the "scope" of the book had been determined, while now work is well under way on standards, description, preparations, etc., of drugs which are sure to be included in the revised book, whatever its scope is to be. It is expected that the final report of the committee on scope will be ready in a few months, although the differences of opinion among the members of the committee, nearly all of whom are physicians, as to whether the Pharmacopœia shall be a skeleton or a padded book or neither, are still unsettled. However, it is not too early to predict that many old-time remedies will be no longer official when the new Pharmacopœia is promulgated, and that many names will be found added to the list of official drugs. No radical change in the general arrangement of the book or in the general treatment of the drugs and preparations listed in it, are expected.

PROMPT WORK LOOKED FOR.

Other reasons for the expectation that the ninth revision will take less time than the eighth are based upon the fact that the convention was incorporated ten years ago, and so has a continuous existence, much work done by the committee of revision prior to the 1910 meeting being available for the use of the present committee; and the further fact that whereas formerly the large drug and chemical manufacturing concerns rendered no aid in the revision of the book, since the passage of the food and drugs act, which makes it incumbent upon these manufacturers to use the Pharmacopœia as their guide, they, with their trained workers and unsurpassed facilities, are giving valuable help in the work of revision. Of course, the work of one revision committee has always been available for use by its successor, but incorporation and the more thorough organization made possible thereby, has been of use in this direction. A third reason for expecting more prompt work is based upon a change made in the size of the revision committee.

HOW THE PHARMACOPŒIA IS REVISED.

Just here it may be worth while to remind some who have not kept in close touch with pharmacopœial matters, how the book is revised. A convention made up principally of delegates from medical and pharmaceutical colleges and associations, although among them are a few from other bodies, including several of the departments of the United States government, meets once in ten years at Washington for the purpose of adopting certain general principles to be followed in revising the Pharmacopœia. As just stated, this body was incorporated in 1900, its official title being The United States Pharmacopœial Convention. It has been customary for this convention to appoint a committee of some twenty-five members to take charge of the work of the convention during the ten-year interval, that is to say, to revise, publish, and sell the book; but in 1900 the work of this committee was divided, and the business end of it was imposed upon a board of trustees composed principally of business men, while the scientific work was referred to the committee of revision. Last year a further change in the arrangement was made. It was thought that a committee of revision composed of twenty-six members (as was the last one) was, on the one hand, not sufficiently large and representative, and, on the other, too cumbersome to do its work promptly, so a general committee of revision was appointed, consisting of fifty members, exclusive of the president of the committee, who is an ex-officio member, and this general committee was authorized and directed to appoint from among its members an executive committee of revision to consist of fifteen members, the larger committee to have general control of the revision, while the smaller one was to have direct supervision of the work. This plan seems to be working satisfactorily.

PROF. REMINGTON AT THE HELM.

Prof. Joseph P. Remington, of Philadelphia, is chairman of the general committee of revision, which makes him ex-officio chairman of the executive committee of revision, and as such he is immediately in charge of the entire work

of revising the Pharmacopœia, and, of course, has an immense amount of correspondence to attend to and innumerable details to look after.

TARDY AID FROM THE GOVERNMENT.

It was hoped that the work of the United States public health and marine-hospital service in collecting and classifying the comments on the Pharmacopœia would be of material assistance to the committee of revision, but if this work continues at its present rate of progress, it is expected that the Pharmacopœia will be published before the later volumes of the government-made "digest" are available. However, as the three volumes that are already out cover the three years immediately following the publication of the present Pharmacopœia, they doubtless contain abstracts of or references to most of the comments that have been made on that book, as most of those who had any complaints to make or criticisms to offer doubtless relieved their minds before the Pharmacopœia was over three years old.

In their work on the determination of certain physical constants of the materials with which they are dealing, the members of the revision committee are beginning to feel somewhat handicapped by the lack of certain uniform data as to boiling and melting points. These data are to be supplied by the United States government, whose chemists and physicists have not yet entirely worked them out.

IDENTIFYING STANDARD DRUGS.

It is interesting to note that each specimen of crude drug on which members of the committee of revision work, has first been certified by the chairman of the sub-committee on botany and pharmacology, Prof. Henry Kraemer, of Philadelphia. In like manner, the identity and purity of samples of volatile oils for use as standards, are certified by the chairman of the committee on volatile oils, Dr. Harvey W. Wiley, of Washington.

AS TO OFFICIAL STERILIZATION.

Many matters of importance which the convention of 1910 found it impracticable to settle, were referred to the general committee of revision, among them being a recommendation—

That a chapter on sterilization be introduced describing the proper methods for sterilizing medicaments and indicating to what preparations each method is especially applicable.

This recommendation has been referred to a special committee, of which Dr. J. M. Francis, of Detroit, is chairman, with a view to having the committee draft a tentative article on this subject. There has been some doubt expressed as to the wisdom of introducing such a chapter. The executive as well as the general committee of revision may be relied upon to act in a safe and conservative manner on the report of the special committee. The Swiss Pharmacopœia has such a chapter.

A NEW MEMBER OF THE EXECUTIVE COMMITTEE.

Prof. A. H. Clark, who has been elected to the place on the executive committee, made vacant by the death of Prof. Hallberg, has been assigned to the sub-committees on general and organic chemistry, proximate assays, and miscellaneous galenicals. Prof. Hallberg was chairman of the latter sub-committee, and an election is now in progress to choose his successor as such.

FIN DE SIECLE.

The forthcoming revision will be the tenth decennial issue of the United States Pharmacopœia, and its final publication will mark the end of the first century of real Pharmacopœia-making in this country.

Federal Positions Open.

The United States civil service commission announces an examination to be held March 29th, for the purpose of securing eligibles to fill a vacancy in the position of *editorial assistant* in the bureau of mines, department of the interior, at a salary ranging from \$1,200 to \$1,500 per annum. The examination will consist of tests in editing, proof-reading and thesis-writing, and there are high requirements as to education and experience. Applicants must show that they are college or technical school graduates and that their education has included courses in chemistry, physics and higher mathematics.

There is also a \$4500 position as *professor of chemistry* to be filled in the public health and marine-hospital service. An experienced chemist with the degree of doctor of philosophy or doctor of science is wanted. Application blanks may be had from the commission.

New York Anti-Narcotic Ordinance Modified.

Influenced no doubt by the storm of protest arising among pharmacists, physicians and the public, which has beaten against it almost continuously since the enactment of the amended anti-opiate ordinance August 26th (see the CIRCULAR for September last, page 492) the board of health of this city at a meeting held February 7th, adopted the following modified form of the section of the code dealing with the sale of narcotics:

Section 182. No cocaine or salts of cocaine, eucaine, stovaine, alpha- or beta-eucaine, either alone or in combination with other substances, or any substance under any other name giving a similar chemical test of cocaine; and no opium or official preparation of opium, and no morphine or salts of morphine, or the derivatives of either or any of them, shall be sold at retail by any person in the city of New York except upon the written prescription of a physician, duly authorized to practise as such or other person duly authorized by law to practise medicine and administer drugs, or perform surgery with the use of instruments. Any such prescription shall not be refilled.

Nothing hereinbefore mentioned, however, shall apply to compounded mixtures containing opium or morphine or their derivatives, the formulas for which are given in the latest Dispensatory or National Formulary, in which said mixtures the maximum dose, as plainly stated on the label of the package as dispensed does not contain in excess of one-half a grain of powdered opium or the equivalent of its alkaloids; or to preparations for external use only, in the form of liniments, lotions, ointments or oleates.

The last-mentioned preparations shall be labeled "For External Use Only," and marked "Poison."

This new ordinance has been discussed at meetings of several local organizations as may be seen in the reports thereof in this issue; and, although the feeling of the discussion is not totally favorable to the present form of the measure, it is considered more satisfactory than its predecessor. The health authorities are stated to have been converted to the opinion that the former measure was too drastic. They also appear to have hearkened to the criticism of the ordinance because of its lack of clarity.

It is rumored that the proprietary manufacturing interests are considering the advisability of contesting the validity of the ordinance. Inquiry at the office of the board of health elicited the information that the authorities had no indication of any protest either from the makers of nostrums or from the proprietors of the patented derivatives of opium.

Kings County Society.

The prospect of much of interest arising drew a large attendance for the meeting of the Kings County Pharmaceutical Society held February 14th. There was no dis-appointment in the nature of the session.

One member was added to the enrollment; and three applications for membership were received.

The report of Treasurer Adrian Paradis showed a balance to the credit of the society of \$350.45 and one to the credit of the Brooklyn College of Pharmacy of \$9,814.74.

For the legislative committee Dr. William Muir reported briefly on the hearing on the Foster bill (see last month's CIRCULAR, page 105). He related that four pharmacists in New York and four in Brooklyn had endeavored to carry out the provisions of the Foster bill and had found it an extremely difficult task, especially during the busy hours of the day. Dr. Muir also spoke of several bills now before the State legislators and called attention to the one which purposes to prohibit the giving of souvenirs with drug-store purchases. This bill, he thought, was a good one, as the practice it was aimed at was demoralizing to the best interests of pharmacy. He gave an outline of the Turley bill which provides that upon all physicians' prescriptions must be stated whether the prescription is for an adult or a child, and if for the latter its age must be stated; and of the Pollock bill which provides that any licensed pharmacist may become a member of the State board of pharmacy without having as at present is required ten years' experience in the practice of pharmacy and that the secretary of the board be appointed by the governor for three years. Dr. Muir did not favor this bill and said that the State association would appear against it.

In connection with the report of the committee on legislation the recently promulgated amendment to section 182 of the municipal sanitary code (see above) was discussed and the members were largely of the opinion that it was a decided improvement on the original anti-morphine ordinance. Dr. Muir called attention to one feature of the ordinance which in his opinion was inconsistent. This is that, as he believed, a doctor's prescription for any sub-

stance containing the prescribed opium derivatives may not be refilled, yet any of the same substances may be sold over the counter to customers as the druggist sees fit providing the maximum stated dose does not exceed one-half a grain of opium or its alkaloidal equivalent. The recognition of the dispensatory need not bother the druggist, said Dr. Muir, as it gives him greater latitude than would the specification of the Pharmacopœia. He thought that the clause which prohibited the refilling of prescriptions would be disapproved by physicians.

For the telephone committee Dr. Muir announced that a hearing would be held before the public service commission February 24th.

Charles Heimerzheim reported that the work of the committee on trade matters was progressing. He said that the druggists did not seem as eager for the propagandic post cards as had been expected. He reported having a balance of \$13 on hand. It was decided to continue the propagandic detail man at work for another month.

Prof. W. C. Anderson called attention to the practice of a Brooklyn hospital which he said had printed upon its prescription blanks the information that the medicine could not be properly compounded at any other place than the hospital dispensary. President Rehfuß said that this was no doubt done to force the patient to return to the hospital for the medicine, as it was the aim of such institutions to make the dispensaries self-sustaining. A committee was appointed to confer with the hospital authorities in an endeavor to have the practice eliminated.

Dr. Muir called attention to the work of the late Prof. Hallberg in pharmacy's behalf, and to the worthiness of the Hallberg memorial fund. The sum of \$25 was appropriated to this fund.

The chairman of the committee on pharmacy, Otto Raubenheimer, introduced T. J. Keenan, who read a paper on "Prof. Ehrlich's Side-chain Theory and the New Science of Chemo-therapy." Mr. Keenan was assisted in the presentation of his subject by O. O. R. Schwidetzky, who demonstrated some of the appliances used in the administration of Ehrlich's remedy. At the close of the address some interesting discussion was indulged in. Prof. Joseph Kahn commented on the chemistry of the new remedy.

Both Mr. Keenan and Mr. Schwidetzky were formally thanked by the society.

A talk on "Milk Analysis," by Dr. J. L. Mayer, was announced for the March meeting.

New York Alumni Doings.

The Alumni Association of the College of Pharmacy of the City of New York, Columbia University, held its sixteenth annual ball on the evening of February 1st, at Eldorado Hall, this city. The ball room and the fraternity boxes were beautifully decorated in the colors of the college and the several fraternity colors. The attendance was large and the affair was a success financially as well as socially.

The dancing was continued until close on to daybreak.

A lecture was given under the auspices of the alumni association at the college building, February 15th. William G. Williams, a man of many travels, spoke on "Mexico, Our Sister Republic." His address was illustrated with stereopticon views and was quite instructive as well as highly entertaining.

After the lecture an informal dance was held in the library.

New York German Apothecaries.

Following the opening routine at the meeting of the New York German Apothecaries' Society held February 2d, Emil Roller, chairman of the committee on scientific papers, recalled to the members the social and scientific meeting which had been held three years ago, and advocated having a similar entertainment this year. He went on to say that he had secured Prof. Max Mueller, of the University of Pennsylvania, for an evening in April, who would lecture on "Life in Egypt at the time of Moses, 1500 B. C.;" and he thought that a social gathering could easily be arranged at the close of the lecture, which would especially interest the ladies because Mrs. Max Mueller had promised to be present and to wear the splendid Egyptian ornaments which she had acquired during her stay in Egypt. This suggestion was very favorably received, and an appropriation for the expenses was made.

S. V. B. Swann reported as chairman of the legislative committee that he had answered the request of the Man-

hattan Pharmaceutical Association regarding the formation of an agitation committee to fight the \$50-city license fee which was levied for the sale of combustible substances, but that he had heard nothing more of the matter. He also read a detailed report on the Foster bill which he said would entail many new hardships on the druggists and ought to be fought with every means in their power.

In the discussion following this report the members expressed very decided views against the bill. O. P. Gilbert was of the opinion that a law should be passed forbidding the general sale of narcotics and permitting it only to apothecaries. Felix Hirseman held a like view, and further thought that the board of pharmacy should be requested to make public the extent of the sales of narcotic drugs and chemicals. This led to the passing of the following resolution which Mr. Swann was instructed to forward to the board:

Resolved, That the board of pharmacy be requested to have published in the pharmaceutical and medical press the record of sales of narcotic drugs for the past six months, as shown in the reports of the board's inspectors of wholesalers and manufacturers to retailers and others, giving names of all parties therein recorded or concerned in said transaction.

Some additional discussion of the Foster bill followed, Dr. W. C. Alpers reporting that the conference committee of the local pharmacal organizations had formally protested against the enactment of the bill. Subsequently the society passed the following resolution:

Resolved, That while we favor restriction in the sales of morphine and cocaine or their salts, we must strenuously oppose the passage of house bill 25241, known as the Foster bill now in ways and means committee and under consideration by that honorable committee, owing to its most drastic provisions and the hardships entailed thereby upon the retail drug trade.

Mr. Gilbert, chairman of the entertainment committee, reported that arrangements had been completed for the musical and social affair to be held February 23d. He also reported on the progress of the plans for celebrating the sixtieth anniversary of the society in October.

The speaker of the evening was Dr. Friederich Klein, who presented in an interesting and erudite manner the subject of "The Members of the Sulphur Group." He told of the occurrence, production, purification, and uses of sulphur, selenium, and tellurium. A lively discussion ensued; and Dr. Klein was formally thanked.

Acquainting the Public with Pharmacy.

In a series of public lectures being given in this city under the auspices of the College of Pharmacy of the City of New York, Columbia University, in co-operation with the Educational Alliance, it is purposed to bring about a better understanding among the laity, of the profession and public duty of the pharmacist. The lectures are given each Monday evening at 8:30 o'clock in the Educational Alliance Auditorium, 197 East Broadway, Manhattan. Admission is by ticket, which may be had free from the alliance.

Three lectures have been given. The following three are yet to come:

March 6th, "The Legal Standards of the Pharmacist," by Otto Raubenheimer.

March 13th, "The Drug Trade and the Public," by Dr. William Jay Schieffelin.

March 20th, "The Practical Side of the Retail Drug Business," by F. E. Holliday.

The speakers during February were Prof. C. F. Chandler, Albert Plaut, and Dr. H. H. Rusby.

Medical Lodge Unchartered.

At the instance of the attorney-general Justice Kelly of the supreme court of this State recently revoked the charter of the Equitable Medical Company, of this city, on the ground that the concern was carrying on an insurance business without having been rightfully incorporated to do so.

It is stated that the plan of the company was to supply medical attendance and medicine, and, if death occurred, to bury the subscriber in style; also there was some sort of an insurance prior to death; all for a premium of \$200 paid at the rate of 5 cents a week.

Anthony F. Ruppel has purchased the store known as Westphal's Junction Pharmacy, Communipaw avenue and Grand street, Jersey City, N. J.

Meetings of American Pharmaceutical Association Branches.

New York.—Because of a volume of incidental discussion it was impossible to carry out the program scheduled for the meeting of the New York branch of the American Pharmaceutical Association held February 13th. The proposed discussion of the publication plan of the *Journal* of the parent body was postponed.

President G. H. Hitchcock opened the meeting, the first under his rule, with an expression of hope in the future of professional pharmacy and of a desire for still better cooperation with the medical profession.

Treasurer Joseph Weinstein reported a balance on hand of \$42.55.

For the membership committee Louis Berger presented one application. Later W. F. Macdowell reported having several candidates ready.

For the committee on the progress of pharmacy Otto Raubenheimer presented a detailed critique of the new German Pharmacopoeia. His conclusion was that the D. A. V. while markedly precise and clear in much of the text, particularly with regard to the directions, yet in many instances was lacking in clarity and completeness.

T. P. Cook, the chairman of the legislative committee, was not able to be present, and his report was read by the secretary. The committee reported that opposition to the Foster bill continued to grow. There was also a report on doings at Albany (see page 168).

Supplementary to this report Secretary Hugh Craig read the newly amended anti-narcotic ordinance of the local board of health (see page 164); and this measure was discussed at considerable length.

J. L. Mayer considered the legislative tinkering being done by pharmacal organizations to be folly and advised a straight go-ahead policy along the lines of the Beal model law. He did not favor giving to the board of health the right to interfere in the practice of pharmacy, because, as was shown in the instance of the ordinance in question the board was inconsiderate. His chief criticism of the measure was directed against the provision restricting the refilling of prescriptions.

Mr. Weinstein suggested that a draft of a State law be prepared based on the ordinance, as he believed this an improvement upon the former anti-narcotic ruling. He could not see the harm in prohibiting the sale of narcotic nostrums; and he believed it to be no more than right that the refilling of prescriptions for narcotics be prohibited.

Mr. Craig was of the opinion that the pharmacists had been blind to the trend of matters relating to the regulation of the sale of narcotics, and had by neglecting their opportunity to further restrictive legislation, left an open door for the anti-narcotic efforts of others.

Hiland Flowers averred that the anti-narcotic ordinance should be supported because fundamentally it was for the public good, and not unreasonable. He pointed out the misery arising from the use of narcotic nostrums and the misuse of prescribed medicaments.

Mr. Raubenheimer feared that the ordinance would not be thoroughly enforced and hence would result only in a disadvantage to the law-abiding druggist.

F. E. Niece and T. D. McElhenie also commented upon the ordinance; and at the suggestion of Mr. Flowers the branch will consider an all-State law at the next meeting.

The secretary announced the death of Maxwell Abernathy; and formal cognizance of this was taken.

In the exhibition and demonstration of useful dispensing accessories J. L. Lascoff showed an improved label cabinet in which each sort of label is held by a spring in a grooved compartment from which any desired one can easily be removed. Mr. Lascoff also demonstrated the usefulness of a prescription desk or bench having a glass top and sliding shelves on which the manipulations could be carried out.

Mr. McElhenie told of the utility of a meat-chopper in comminuting drugs, and exhibited a beveled piece of hardwood used as a powder folder, and also a snap suppository mold.

Mr. Craig described a suppository die which he had required for suppositories containing large amounts of asafetida; this die was made out of a piece of hardwood bored to size and a metal clamp. He exhibited a small sieve consisting of two tin ointment boxes with a gauze diaphragm between them; a "snap" catcheteur machine; an attachment for essential oil bottles for keeping a dropper handy

and protected from dust; and a string-and-board cutter for cacao-butter. He also told of the usefulness of an egg-whip in making cold-cream, etc.

Mr. Raubenheimer exhibited a plate for molding lozenges, and a bottle of shot he used as a counterpoise.

Cornelius DeJonge reported that by putting alternate layers of iodine and potassium iodide in a percolator and pouring alcohol over the chemicals it was possible to dissolve 19 ounces of iodine in 16 ounces of alcohol. Mr. McElhenie and Mr. Raubenheimer commented upon the preparation of tincture of iodine.

Mr. Lascoff told of a case of poisoning caused by "A. S. & B." pills, the victim not knowing that they contained a toxic ingredient. There was also some discussion as to a satisfactory diluent for hypodermic tablets. Mr. McElhenie favored sodium chloride, the general opinion favoring sugar.

Northern Ohio.—The meeting of the Northern Ohio branch of the American Pharmaceutical Association held at Cleveland, January 27th, was a somewhat informal gathering, as the inclemency of the weather interfered with the attendance. This was the annual meeting but on account of the small number present the election was deferred.

However, there were reports by President L. H. Hopp and Secretary-Treasurer H. V. Army and the chairmen of the several standing committees. All of these augured favorably for the prosperity of the branch.

The first discussion had to do with the proposed Hallberg memorial fund which was unanimously favored. There was considerable discussion of legislative matters, State Senator Krouse, a member of the branch, being present to learn of desired legislation.

A special committee was appointed to arrange a social affair to supplement the February meeting.

Philadelphia.—*Scientific Section.* Prof. J. O. Schlotterbeck, of Ann Arbor, Mich., was the speaker of the evening at the meeting of the scientific section of the Philadelphia branch of the American Pharmaceutical Association held February 4th. His subject was "The Deceptive Advertising of Foods and Drugs."

Prof. Schlotterbeck was unsparing in his condemnation of those proprietors of medicinal preparations who foist upon the public a concoction of little, if any, remedial value; and claim for their wares in the advertisements unlimited therapeutic worth. In the course of his remarks the lecturer showed with a stereopticon reproductions of labels and advertisements in which the extravagance of the claims was more than ordinary.

The Professor laid particular stress upon the statement that the newspapers were serious offenders in bringing to the attention of the public the extravagant and untruthful claims made for various preparations particularly for those exploited for the restoration of health and beauty. The housewife, he declared, was the individual most given to acting on the statements made in the daily press as to the merits of preparations in the way of drugs and foods and yet less likely to receive the information as to exposures and prosecutions concerning these very same articles. Such information, according to the lecturer, was more likely to reach scientific audiences and readers who already knew many of the facts, while not nearly the publicity was given to such exposures in the newspapers as was given to the claims of the manufacturers.

The subject was further discussed by Profs. J. P. Remington, Henry Kraemer, J. R. Minehart, C. H. LaWall, C. B. Kimberly and I. V. S. Stanislaus, and C. S. Brinton, W. A. Pearson, Christopher Koch, and Frederick Gordon.

Prof. Kraemer exhibited a comprehensive collection of growing drug plants, and showed some of the delicate optical instruments being used in the study of pharmacognosy. He also exhibited a number of micro-photographs of crystals.

Prior to the meeting Prof. Schlotterbeck was the guest of the section at a dinner at the New Hanover.

Pittsburg.—Several very interesting features marked the annual meeting of the Pittsburg branch of the American Pharmaceutical Association held in January. An interesting paper was presented by Andrew Campbell, of Greensburg, on the subject of "Some Practical Pharmacy not Ultra-Scientific."

This occasioned considerable discussion by Messrs. Beal, Koch, Judd, Emanuel, Kutscher, and Pritchard.

Dr. L. K. Darbaker gave an illustrated travelogue through England, France, and Germany.

The opening of the question box brought out the following information:

The only official standard for preparations of ginger that was known to the members was that of the new Dutch Pharmacopœia: To contain $4\frac{1}{2}$ per cent. of the alcohol-soluble constituents of 20 per cent. of the drug.

"Sesquicarbonate of ammonia" is a British synonym for the official ammonium carbonate.

"Sugar alcohol" if it contains the required percentage of ethyl hydroxide complies with the requirements of the Pharmacopœia.

The election resulted in the choice of the following officers: President, Andrew Campbell; vice-presidents, P. G. Walter and C. M. Dorsey; secretary, B. E. Pritchard; treasurer, P. H. Utech; committee chairmen; Membership, C. E. Willets; practice of pharmacy, J. F. Blumenschien; medical relations, G. W. Kutscher; education and legislation, J. H. Beal; publicity, W. R. Bell.

Washington.—The meeting of the City of Washington branch of the American Pharmaceutical Association held in February was a quite protracted session because of the voluminous discussion of National Formulary preparations. Practically every member present took part in this discussion and contributions of samples and comment had been sent in by W. C. Alpers, of this city; F. M. Apple and J. K. Thum, both of Philadelphia; C. F. Ninon, of Boston; and Otto Raubenheimer, of Brooklyn. Also H. A. B. Dunning, of Baltimore, was present and exhibited samples of a number of preparations. The discussion may be summarized as follows:

Acetic turpentine liniment.—For this popular preparation the revised formula suggested by Otto Raubenheimer (see the CIRCULAR for December, 1908, page 633) was generally endorsed. Mr. Dunning said that he had used practically the same formula for a number of years. He objected to the presence of rose water, and demonstrated that it added to the cost of the preparation without in any way adding to its elegance or efficiency.

Alkaline antiseptic solution.—Reversing the figures given for sodium borate and sodium benzoate in the present N. F., was commended as a step in the right direction. It was also suggested that the quantity of glycerin might be materially reduced, several members advocating a reduction of at least 50 per cent.

Aromatic syrup of eryodion.—There was general approval of the proposed modification in the method of procedure: to add the solution of oils in alcohol to the fluid-extracts before adding the alkali and the water. It was also suggested that magnesium carbonate might be added as an integral feature of the formula, and thus insure a more uniform product.

Compound digestive elixir.—It was agreed that the presence of pancreatin and diastase in this elixir might be advantageously dispensed with, and that a red elixir containing pepsin would, no doubt, meet with widespread use. The amount of glycerin in the present elixir was also objected to by some, as was the name. Mr. Dunning suggested calling it "Red elixir of pepsin," "Compound elixir of pepsin" was also suggested.

Essence of pepsin.—The use of a menstruum of alcohol and water to replace the wine in the present formula for this preparation was generally favored. Considerable difference of opinion existed in regard to a satisfactory flavor. Several members pointed out the desirability of using rennet devoid of sodium chloride. It was also suggested that the animal odor of the pepsin could be eliminated, without material injury to the ferments, by filtering the solution through willow charcoal before adding the oils or flavoring.

Magnesia magma.—This preparation was considered to be a useful one when properly made. The present N. F. directions were not thought practicable, and several of the members present suggested precipitating the magnesia in concentrated solution and washing with a definite amount of water so as to insure a minimum but uniform amount of sulphate present in solution.

Solution of aluminum acetate.—It was the consensus of opinion that the present N. F. directions for making this preparation are theoretically correct, but unworkable. It was stated that the directions of the new Pharmacopœia or

a slight modification of them could be used to advantage. Several of the members present saw no need for decanting the clear liquid, and preferred filtering. It was also suggested that the dry calcium carbonate might with advantage be added to the solution of aluminum sulphate and acetic acid.

Dr. G. A. Menge offered a paper on "A Standard for Tincture of Caramel." He suggested that a standard solution be made by heating on a boiling water-bath for exactly five minutes 0.5 gramme of sugar with 5 c.c. (mils) of a mixture of 2 volumes of sulphuric acid and 10 volumes of water; the resulting mixture to be partially cooled by the addition of 25 c.c. (mils) of cold water; neutralized with solution of potassium hydroxide; and diluted to 100 c.c. (mils).

This subject was discussed by Messrs. Kalusowski, Kehler, and Wilbert, all being agreed as to the desirability of having a color standard for caramel solutions.

S. L. Hilton exhibited and described the process of making some bismuth magma.

Dr. M. G. Motter announced the death of Leo Eliel, of South Bend, Ind. A special committee offered the following memorial resolutions (with a preamble) and they were formally adopted:

Resolved; That the members of the City of Washington branch of the American Pharmaceutical Association hereby record their appreciation of the great loss to pharmacy occasioned by the death of Leo Eliel; and be it further

Resolved, That a copy of these resolutions be forwarded to the members of the family of the deceased, and that they be embodied in our minutes, and offered for publication in the pharmaceutical journals.

After the appreciation of the branch had been formally extended to Mr. Dunning, adjournment was taken.

Brooklyn Druggists Would Curb Board of Health.

A called meeting of representatives of the pharmacal organizations of Brooklyn, N. Y., was held on the evening of February 22d. About two score were present. Otto Raubenheimer presided.

Considerable attention was paid to the question of taking away from local boards and councils the right to legislate concerning the practice of pharmacy. A draft of an amendment to the public health law of this State embodying an attempt so to restrict these bodies was endorsed. The meeting also passed resolutions protesting against the enactment of the Pollock bill (see page 164).

A permanent organization "for Kings county pharmacists" was launched with E. C. Krausche as president.

By the terms of a recently promulgated decree of the Argentine Republic government all pharmaceutical and dietetic products, vaccines, serums, diagnostic elements, mineral waters, etc., imported into the country shall be declared not only according to their tariff-classification, but also with their full specifications, such as the names of the manufacturer, the product, and the principal component materials. The declarations, on being presented to the customs, are to be transmitted to the national health department for the necessary action in respect to any products found to be in conflict with the pharmacy law.

Once again the fallibility of the colorimetric tests for alkaloids in the viscera has been brought forward to save a man charged with murder. This time the scene is Cincinnati, Ohio, the home town of Prof. John Uri Lloyd, whose "Stringtown on the Pike" was constructed around an incident of the same nature. Prof. Lloyd has taken an interest in the case in question and has criticized the "expert" evidence accepted.

Prof. C. M. Snow, for the past nine years assistant to the late Prof. Hallberg at the School of Pharmacy of the University of Illinois, has been appointed acting professor of pharmacy by the trustees of that institution. Prof. Snow was recently elected a member of the committee on revision of the National Formulary filling the vacancy therein created by the death of Prof. Hallberg.

The Wedgewood Club, of Brooklyn, N. Y., enjoyed a theater party and dinner on the evening of January 26th. Members and their ladies, a party of forty-one, attended the Majestic Theater. The dinner which followed was a sumptuous affair. Many informal speeches were made.

Some Contemplated Legislation.

Federal.—Protests continue to be voiced against the Foster bill. The drug trade section of the board of trade of this city at a meeting held February 1st protested vigorously against the enactment of the bill in its present form. It is the desire of the section to have the following exempting provision embodied in the bill:

Nothing hereinbefore mentioned, however, shall apply to compounded mixtures containing not more than two-grains of opium or not more than one-quarter grain of morphine in a fluid ounce, or, if a solid preparation, in an avoirdupois ounce; nor to preparations containing opium sold for diarrhoea and cholera, each bottle or package of which is accompanied by specific directions for use and a caution against habitual use; nor to powder of ipecac and opium commonly known as Dover's powder; nor to liniments, lotions, ointments or oleates and plasters when plainly marked "for external use only."

The Mann bill to enlarge the scope of the public health and marine-hospital service has been endorsed by the committee on interstate and foreign commerce. This endorsement begins with the following pertinent sentence: "There is nothing in the bill which relates to the practice of medicine or the art of healing, or which restricts personal liberty in this regard." It has been stated that the objections offered against this bill by medical organizations failed to impress the law-makers, because these generally were based on a premise diametrically opposed to the foregoing quotation.

Doubtless to do away with the cries of "violated personal freedom" Senator Owen has introduced an amendment to his bill seeking to provide a federal department of health, in which it is clearly stated that the bill does not attempt to go beyond the constitution in the matter of State rights and unjust discrimination.

Senator Owen has also introduced the following straight-advertising bill:

Be it enacted by the senate and house of representatives of the United States of America in Congress assembled, That all printed matter intended or paid for as advertisement matter in newspapers or magazines using the mails of the United States shall appear in the advertisement columns and be marked as such, so that the public can understand that such matter is an advertisement.

Sec. 2. That any violation of this section shall be subject to a penalty of not exceeding one thousand dollars for each offense, and the postmaster general is authorized to bar such publication from the mails until satisfactory bond is filed against its repetition.

Mr. Mann has another measure before congress, in which it is sought to amend the food and drugs act of June 30th, 1906, so as to require the net weight of the contents of a package of food to be stated within reasonable variation upon the label.

Arkansas.—It is sought in a bill introduced in the State legislature to make it illegal for any person other than a physician to offer or profess "by any verbal statement, writing, print, or other method, . . . to cure or treat any injury, disease or deformity of any human being by any drug, nostrum, manipulation or other expedient." The provisions do not apply to the administering of "domestic remedies."

Illinois.—The proposed new pharmacy law endorsed by the Illinois Pharmaceutical Association is a very comprehensive measure. Its terms are remarkably clear. The qualifications of board members are quite like those fixed by the New York law. College graduation is made prerequisite to registration as a pharmacist, and provision is made for the reciprocal interchange of licensure with the boards of other States. The provisions of the law are applied to nostrums containing any of the scheduled poisons. Strict adherence to the standards of the Pharmacopœia and the National Formulary are required. The sale of cocaine, or any of the synthetic substitutes for it, is made dependent upon a physician's prescription, or, at wholesale, upon the written order of pharmacist, physician, veterinarian or dentist. The prescriber of cocaine or its analogues to habitués is made illegal.

Iowa.—The State legislature is considering an itinerant vender's law.

Massachusetts.—Several food and drug measures have been introduced in the legislature; these are directed toward harmonizing the State law with the federal statute. Another bill requires the presence at all times of a registered pharmacist or assistant in every retail drug store.

Montana.—A food and drugs act quite similar to the federal act is before the law-makers; it gives to the board of health the power to fix standards and define adulterations; however, requiring the board not to act in contra-

vention of the provisions of the rules and regulations under the federal statute.

New York.—The legislature is full of pharmacal measures, the following being the more prominent ones: A bill to reduce the maximum number of hours constituting a drug clerk's day; a bill extending the right of registration as a pharmacist to physicians having the qualifications required of pharmacists prior to 1901; a bill to prohibit the sale of hypodermic syringes and needles at retail to any person other than a physician, dentist, or veterinarian or upon the written order of a physician or veterinarian; a bill to make it illegal for a druggist to give away premiums of any sort; a bill to require physicians to designate upon their prescriptions whether the patient is an adult or a child and the age of the latter; and a bill to reduce the qualifications of members of the board of pharmacy.

Ohio.—An itinerant vender's bill is on the calendar of the legislature.

Pennsylvania.—The Philadelphia members of the legislature were the guests of the Philadelphia Association of Retail Druggists at a dinner January 27th. There was a discussion of a proposed anti-narcotic law and the codification of the pharmacy law. A bill has been introduced by a Philadelphia representative in which it is sought to compel the declaration upon the labels of nostrums of the exact proportions of each component ingredient; and the labeling of a preparation "Poison" when it contains "more than 8 per cent. of ethyl alcohol or more than one-twenty-fifth of 1 per cent. of morphine, heroine, cocaine or of the salts or equivalents or derivatives of the same or any of them, or more than one-fourth of 1 per cent. of chloral hydrate or any quantity of belladonna, cottonroot, ergot or other abortifacient." Provision is made for the analysis of nostrums and for changes in formulas. This measure also contains the following provision relative to misleading advertising:

Section 5. Any person, firm or corporation or association or any employee thereof who in a newspaper, circular or other publication published in this State knowingly makes or disseminates any statement or assertion of fact concerning the quantity, quality, the value, the method of production or manufacture or the reason for the production of his or their merchandise or the manner or source of purchase of such merchandise or in the possession of rewards, prizes or distinctions conferred on account of such merchandise or the motive or purpose of a sale intended to give the appearance of a plan advantageous to the purchaser which is untrue or calculated to mislead in the advertisement of merchandise as herein stated [shall be subject to the penalties provided].

South Dakota.—The Morrissey-Giedt bill requires the publication in the official papers of lists of sophistications of foods, drugs, beverages, oils, etc., giving the brand of the sophisticated substance, the name of the responsible party, and the reason for considering the substance adulterated.

Louisiana Anti-Narcotic Measure.

The following stringent restrictions upon the sale of narcotics are embodied in several amendments to the sanitary code adopted by the Louisiana Board of Health, December 19th, 1910:

That every wholesale druggist, or person, firm or corporation selling drugs at wholesale, shall keep a register in which shall be entered each and every sale made by them, or their agents or employees, of cocaine, or its salts, derivatives or preparations, which register shall contain the name of the person or firm to whom such sale was made, with the date of such sale and the quantity and the form in which said drug was sold; and the said vender shall cause the purchaser to sign said register, giving the address from which the drug is to be retailed.

That no sale of cocaine, or its salts, derivatives or preparations shall hereafter be made to any person, firm or corporation other than one conducting a duly licensed drug business in charge of a registered pharmacist, and that all sales of cocaine, or its salts, derivatives and preparations, shall be made direct to the said pharmacist, and not through, or by the medium of any agent.

That every druggist who purchases cocaine, or its salts, derivatives or preparations, shall be required to submit to and file with the person, firm or corporation from which said drug is purchased, and before it shall be lawful for any vender to sell such drug, or its salts, derivatives or preparations, an affidavit duly sworn to before a notary public, stating that the amount of cocaine, or its salts, derivatives or preparations, which it is desired to purchase is necessary and merely sufficient for the legitimate needs of the trade of the purchaser; that the purchaser has not purchased any cocaine, or its salts, derivatives or preparations, from any other vender for thirty days prior to the making of the said affidavit; and the affidavit so made shall be annexed to and made a part of said register hereinbefore provided for, to be kept by the vender.

That the said register shall, at all times, be open to the inspection of the Louisiana State Board of Health, the district attorney and the police authorities of the several towns and

parishes of the State; and that the wholesale vender shall, in addition to the keeping of the said register, submit to the Louisiana State Board of Health on the first day of each and every month a signed statement containing a list of all persons, firms or corporations which have purchased cocaine, or its salts, derivatives or preparations, together with the amount of cocaine, or its salts, derivatives or preparations purchased.

Provided that no wholesale dealer shall sell to any one purchaser more than a total of one ounce of cocaine, or its salts, derivatives or preparations, during a period of thirty days; and further provided, that if two or more stores are operated by the same person, firm or corporation, one ounce of cocaine, or its salts or derivatives or preparations, per month may be purchased for each of said stores; provided, further, that the purchaser swears to the necessity for said quantity by affidavit and as hereinbefore provided.

That public hospitals, sanitariums or public or scientific institutions shall comply with all of the provisions of these regulations, except that sales to such institutions shall be limited only to the quantity that they may actually require.

That where the purchaser of cocaine, or its salts, derivatives or preparations, is not a resident of the city or town where the wholesale vender's establishment is situated, the purchaser may submit an affidavit by mail, together with a power of attorney authorizing the wholesale vender to sign the register in his place and stead.

Article I. That it shall be unlawful for any firm, or corporation to sell, furnish, give away, or to have in his, her, their, or its possession any cocaine, eucaine, opium, morphine, heroine, or any salts, or compounds of the foregoing substances, or any preparation or compound containing any of the foregoing substances, or their salts, or compounds, except upon the original written order or prescription of a lawfully authorized practitioner of medicine and bona-fide prescriptions of dentists, which order or prescription shall be dated, and shall contain the name of the person for whom prescribed, and shall be signed by the person giving the prescription or order. Such prescription or order shall be permanently retained on file by the person, firm or corporation, who shall compound or dispense or sell the articles ordered in the prescription, and such order shall not again be compounded or dispensed except upon the written order or prescription of the original prescriber for each and every subsequent compounding or dispensing of such article or articles. No copy or duplicate of such written order or prescription shall be made or delivered to any person, but the original shall at all times be open to inspection by the prescriber or properly authorized officer of the law; provided, however, that the above provisions shall not apply to paregoric and bona-fide proprietary medicines containing not more than two grains of opium, or not more than two-fifths of a grain of morphine, or not more than one-half grain of heroine in one fluid ounce, or if a solid preparation, not more than one avoirdupois ounce; provided, however, that the above provisions shall not apply to preparations containing opium recommended and sold in good faith for diarrhea and cholera when each bottle or package is accompanied by directions telling its use, or a caution against habitual use, nor to the powder of ipecac and powder of opium (commonly known as Dover's powder), or to liniments or ointments containing cocaine or its salts, when plainly labeled "for external use only," and provided further, that the above provisions shall not apply to hospitals, scientific colleges and public institutions, and provided further, that the above provision shall not apply to sales made direct by wholesale houses to hospitals, scientific colleges, public institutions, physicians and dentists.

Article II. That it shall be unlawful for any practitioner of medicine, or dentistry, to furnish to or prescribe for the use of any habitual user of the same, any cocaine, heroine, alpha- or beta-eucaine, opium, or any salt or compound of any of the foregoing substances, or any preparation containing any of the foregoing substances, or their salts, or their compounds, and it shall be unlawful for any practitioner of medicine to prescribe any of the foregoing substances for any person not under his treatment in the regular practice of his profession, provided, however, that this provision shall not be construed to prevent any lawfully authorized practitioner of medicine from furnishing or prescribing in good faith for the use of any habitual user of narcotic drugs who is under his professional care, such substances as he may deem necessary for their treatment, when such prescriptions are not given or substances furnished for the purpose of evading the provisions of this law.

Provided that the above provisions shall not apply to sales at wholesale by wholesale druggists or pharmaceutical manufacturers to retail druggists or lawfully qualified physicians, dentists, or hospitals, scientific colleges or public institutions, and provided further, that the provisions herein against the possession of any of the foregoing substances, or their salts, or their compounds, or any preparation or compound containing the same, except upon either the prescription or order of a lawfully authorized practitioner, shall not apply to wholesale druggists, pharmaceutical manufacturers, retail druggists, lawfully qualified physicians, dentists, hospitals, scientific colleges or public institutions.

Section 1. No prescription shall be refilled which contains any of the following drugs, viz.:

Opium, or its derivatives; cocaine, or its derivatives; chloroform, hyoscyamus and cannabis indica, except preparations containing not more than one-half grain of codeine or heroine to the fluid ounce.

Denver Association.

The annual meeting of the Denver (Col.) Pharmaceutical Association was held January 10th. President C. J. Clayton expressed his disappointment that the past year had not seen more activity. He attributed the lack of growth in the organization to the fact that success or failure of the association was allowed to depend too much upon the officers.

The new officers are: President, C. M. Ford; secretary, F. T. Boutwell; and treasurer, H. F. McCrea.

Fiftieth Birthday of the Philadelphia Drug Exchange.

About 150 persons, representative of all phases of Quaker City drug trade activity, assembled at the Bellevue-Stratford Hotel on the evening of January 27th to commemorate the golden jubilee of the Philadelphia Drug Exchange. There was an informal reception followed by an elaborate banquet, President John Fergusson wielding a jalap tuber as the toastmaster's gavel.

In launching the after-dinner speech-making Mr. Fergusson related briefly the history of the exchange. The first speaker to be introduced was Dr. William Jay Schieffelin, of this city, who as the president of the National Wholesale Druggists' Association conveyed the greetings of that body. The Doctor's speech had to do mostly with the regulation of the traffic in narcotics. He reviewed the legislation, existing and proposed, dealing with this problem and expressed the belief that the traffic would soon be entirely one of "clean hands."

Prof. Joseph P. Remington, the next speaker, dwelt upon the subject of pharmacopoeial revision. It was his opinion that there would be little change in the present standards; and he believed that the outcome of the work of revision would be generally satisfactory. Supplementing his address Prof. Remington read the following original verses:

THE OLD DRUGGIST'S LAMENT TO HIS OLD FRIEND.

In the olden, golden days of yore,
When you and I were young,
We bought and sold, from door to door,
And, played, and danced, and sung.

What mattered it, if stocks were light
With aloes scarce, and market drooping.
We notched the prices up at night
Surely we did all the whooping.

A corner here, a squeeze right there
No cablegrams to bother
We knew our markets to a hair
Just you and I, "well rather!"

The city druggists called on us
Came countrymen to town
They kept us busy selling goods
'Twas great to hold them down.

But then, alas! there came a time,
A time we'll ne'er forget
We warmed our chairs and cooled our feet
And might be waiting yet.

The nimble salesman now goes round
To visit our old set
With smiling face and merry jest
He scoops them in his net.

Costs more, does it, now, than then
To win the welcome orders?
Just advertise now, everywhere, from
Here to West Coast's borders?

That costs too, my worthy friend
Expenses grow apace
You must win in sales and profits
Or drop through empty space.

Cheer up friend, for Spring is coming,
Follow one we prize most highly
Sometimes beaten, ne'er moth-eaten,
Ever youthful Doctor Wiley.

Awake! Awake! trade's flying fast
Through coast, and plain, and mountain range.
No one is old, we rise, we toast
The Philadelphia Drug Exchange.

Albert Plaut, of this city, responded to the toast, "The Obligation of Commercial Organizations." Dr. W. H. Burton, president of Smith College, spoke on "Education and Responsibility." Rev. W. H. Stearley's subject was "Imagination in Business." Mayor Reyburn also spoke.

Philadelphia Association Reaffiliates with N. A. R. D.

At a largely attended meeting of the Philadelphia Association of Retail Druggists, held February 3d, it was decided to renew affiliation with the National Association of Retail Druggists. It was more than a year ago that the Philadelphia association withdrew from the N. A. R. D. Late last year a conference of members of the P. A. R. D. was held. H. W. Merritt, a member of the executive committee of the N. A. R. D., was present. The Philadelphians informed him that certain statements of N. A. R. D. officers which called in question the policies and motives of the men who had favored withdrawal from the N. A.

R. D. would have to be explained and retracted before the association would consider re-affiliation seriously.

At the January meeting of the P. A. R. D. a motion to renew affiliation was laid on the table until, as it was explained, a reply was received as to the intention of the national officers relative to the withdrawal of the charges.

In the latter part of January another conference was held at which H. B. Guilford, of Rochester, N. Y., president of the N. A. R. D., and Mr. Merritt were present. A letter was read from the national executive committee in which the P. A. R. D. was urged to re-affiliate. There was still a doubt as to the attitude of national secretary T. H. Potts and a special committee was authorized to draft a letter to Mr. Potts setting forth the desires of the association for a retraction of the charges made at the time of its secession. This letter was taken to Mr. Potts at Chicago, by Mr. Guilford.

At the February meeting, Secretary Potts' reply was read. Charles Rehfuß, who had been a leader in the secession movement, offered a substitute motion for the one previously tabled. This was unanimously adopted by the association, and is as follows:

Resolved, That we, the P. A. R. D., in regular session assembled, do hereby declare our intention of again renewing our former cordial relations with the N. A. R. D., with a view to again taking our position among the local associations that have contributed so largely to the welfare of the drug trade of this country; and be it further

Resolved, That we hereby express our thanks and believe that the thanks of the entire trade is due President Guilford and Committeeman Merritt for their untiring efforts and success in bringing about this more harmonious condition; and be it further

Resolved, That this association hereby declares its intention to begin its labors in national association work where it left off one year ago and pledges its support to the officers of the N. A. R. D. in their efforts to bring about better trade conditions in the drug business.

At this same meeting the association endorsed the efforts of the Pennsylvania Board of Pharmacy toward securing the labeling of pharmaceuticals in conformity with its interpretation of the State pure-drug law. The association also endorsed a proposed legislative measure which seeks to create a bureau for determining the preliminary educational requirements for prospective pharmacists, dentists and physicians.

Philadelphia College Boys Visit Whitall Tatum Company's Plant.

One hundred and fifty college students can not fail to have a good time when they are on an excursion on their day "off"—and that is exactly what the senior class of the Philadelphia College of Pharmacy had February 16th as the guests of the Whitall Tatum Company, at Millville, N. J. Of course Prof. Remington was along, and he entered into the fun of the occasion as fully and sang the college songs as spiritedly as the boys and girls.

At Millville the visitors were divided into squads and each squad, with a guide, went through the works and saw the process of making bottles and other glassware, from the mixing of the sand to the grinding in of the glass stoppers or the engraving of the fancy figures on the show globes. It all seemed like a magician's shop in fairyland, and as Prof. Remington said to the students, "You'll all have more respect for a bottle now than you ever had before."

A bountiful dinner was served in the middle of the day, and while the usual speech-making feature was eliminated, Prof. Remington said a few words expressive of the appreciation of the guests for the hospitable reception they were enjoying; and Superintendent Bacon, and Benjamin Thorpe, the sales-manager, spoke for the hosts.

This is the sixteenth year that the graduating class of the Philadelphia college—or, as Prof. Remington expresses it, "the class that thinks it is going to graduate"—has visited these works, and there can be no question about the fact that as an educational feature the trip is most valuable.

President Taft has agreed to act as a patron of the Eighth International Congress of Applied Chemistry to be held at Washington, in September, 1912. Mr. Taft will preside at the opening sitting of the congress. Chief Justice White has agreed to preside over the deliberations of the section on jurisprudence.

It is rumored that the United Drug Company, of Boston, will invest more than \$500,000 at Kansas City, Mo., in erecting and stocking a branch manufactory and distributing depot.

Anti-Narcotic Suits at Pittsburg.

Through a special agent the Pennsylvania Board of Pharmacy has for some time been collecting evidence against the illicit venders of narcotics in Pittsburg. Having been quite successful in routing this gentry from Philadelphia, the board tried similar tactics in the "Smoky City," and February 15th representatives of the board and of the local police force gathered in about twenty alleged violators of the anti-narcotic law.

Packages of cocaine, heroine, and morphine, and of Anglo-American catarrh cure alleged to contain 10 grains of cocaine to the ounce, were offered in evidence and their purchase testified to by the special agent of the board. Analyses by State Chemist C. H. LaWall were submitted to prove the character of the substances purchased.

Most of the prisoners were druggists and their employees; against some of them there were three counts. The majority of the infractions were sales of the nostrum named above. All of the accused waived police-court hearings and were remanded for trial under \$500 bail on each count.

It is understood that investigations have been made in other cities and that prosecutions will follow.

Prizes for School Children.

As an off-set to the giving of souvenirs to customers, a practice prevailing among his competitors, M. A. Feinberg, of 259 East Broadway, this city, is attracting the school children of his neighborhood with an offer of prizes to the writers of worthy compositions on subjects selected by a committee of his neighbors. Medals of gold, silver, and bronze are given semi-annually to the successful competitors.

Mr. Feinberg reports that his plan is working well and is gratifying financially as well as giving him a feeling of self-satisfaction different from that of the man whose business motto is "A saucer for a headache, or a tin horse for a backache." He offers to explain his plan to any of his fellows who may consider it worth a trial.

Maryland Trading Stamp Law Invalid.

In a recently handed down decision the Maryland court of appeals declared unconstitutional a legislative enactment regulating the conduct of the trading-stamp business in the State. There were three cases; the trading-stamp companies contended that the requirements and conditions imposed by the act practically prohibited the issue of stamps.

The opinion holds broadly that the present manner of conducting the trading-stamp business does not involve such chance and uncertainty as to arouse the gaming or gambling spirit.

Madame Curie Not Yet an Academician.

Mme. Curie, who with her husband, the late Prof. Curie, discovered radium, has been defeated in her candidacy for membership in the Academy of Sciences, receiving 28 votes against 30 for Edouard Branly. Her candidacy for the seat in the academy once occupied by her husband has attracted much attention, as the only obstacle to her election has been the fact that she is a woman. Her brilliant work in scientific research is everywhere recognized as placing her in the front rank of scientists. In the discovery of radium she is generally admitted to have had a greater part than had her husband.

In reporting a court trial occurring at Cambridge, Mass., some eleven months ago the New York *World* so referred to the testimony of Albert H. Hamilton, of Auburn, N. Y., a handwriting expert, as to bring about a suit for libel. Mr. Hamilton asked for \$35,000 damages. A jury at Auburn, January 25th, awarded damages of \$15,000. The Judge denied the subsequent motion to set aside the verdict; and the case, it is stated, will be taken to the appellate court.

The Scholtz Drug Stores (there are six of them) of Denver, Colo., celebrated the thirtieth anniversary of their beginning, in January. An advertisement occupying about five-sixths of a page in a setting of reading matter was run in the Denver *Republican*, for January 15th, announcing the event and telling about the special low prices that would prevail during that week.

Two Successful Chicagoans.

Success consists of getting what one goes after. This, at least, is the popular conception of the meaning of the word. Men are successful in different ways—some in business, some in politics, some in reaching high professional positions, and some in still other directions. Here, then, follow brief chronicles of two young men of the great Windy City who are successful along somewhat different lines, both of whom will doubtless achieve a greater measure of success as the years roll by.

Prof. Albert H. Clark.

Notwithstanding the fact that he lives in Chicago, Prof. Albert Henry Clark is a quiet, unobtrusive young man with a studious mein. Perhaps he is wondering how he is to fill the place made vacant by the retirement of Prof. W. A. Puckner from the chair of chemistry in the department of pharmacy of the University of Illinois, for Prof. Puckner left a large vacancy when he quit the po-



A. H. CLARK.



E. H. LADISH.

sition; and that other large vacancy left in the pharmacopœial revision committee by the death of Prof. Hallberg.

Just why Prof. Clark chose Marengo, Ill., as a birthplace is not definitely known, but it has been suggested that it was because he would have less competition in his endeavor to make a small place famous than to make an already famous one more so. His first act to add to the fame of Marengo was performed October 15th, 1871, and he is now engaged in a continuous performance to that end; but as noted in the first place, he goes light on the brass instruments and uses no slap-sticks.

When fifteen years of age the future professor had attended grammar and high schools at Marshall and Robinson, in his native State, and succumbed to the lure of the colored lights, the opportunity to chew an unlimited supply of licorice sticks, and the mystery of the prescription case, and secured a position as clerk in the drug store of P. L. Brand, of Marshall. The young man entered the Chicago College of Pharmacy in 1891 and was graduated with the close of 1904. This is not a typographical error, neither must it be understood that it took Mr. Clark thirteen years of hard study to complete the course which other young men finished in two or three. The answer is this: In the spring of 1893 he received an offer of a position in the store of R. N. Dodds, of Springfield, Ill., which he accepted, and did not return to college until just ten years thereafter. He took high honors at the commencement the next year, and walked off with the Becker prize for the best work in pharmacy done by any member of the class.

The Searle & Hereth Company captured him, and shortly thereafter, to wit, in 1905, he was appointed instructor in chemistry at his alma mater.

Prof. Clark is active in association work, and is now the chairman of the scientific section of the American Pharmaceutical Association. He is a member of the American Chemical Society, the Illinois Pharmaceutical Association, his alumni association, a club or two, and as noted in the CIRCULAR for last month, has been elected to fill the vacancy on the committee of revision of the United States Pharmacopœia made vacant by the death of Prof. Hallberg.

Prof. Clark has done some good work in chemistry and has contributed the results of much of it to the current literature on the subject.

E. H. Ladish.

Some pronounce the name of this man as if it were Ladish—like boy-ish—and others pronounce it La-dish, making it sound like something good to eat, while still others (as well as some of the same) cut the Gordian knot by pronouncing him a live wire, and let it go at that. And he is, whether performing as a member of the American Pharmaceutical Association, a section chairmanship in which he declined, or as a N.-A.-R.-D.-er, or as a "purveyor of everything for the care of the sick" in his store at the corner of Larrabee and Center streets.

Mr. Ladish is a near-German, having been born at Milwaukee, and also of German parents. This was March 31st, 1873. When sixteen years of age he had had experience in a denominational school, the public schools, and a night school, so he began his education in another and quite famous institution of learning, the drug store. He was an apt pupil, and while he is not yet a full graduate, he is among the leaders in his class. After clerking for two or three concerns in his native city, Mr. Ladish went to Chicago and gained still further knowledge of the business, and when only twenty-six bought the store of his employer, Herman Fry, in which he has been at work, more or less, usually more, ever since. Once he tried a branch store, but sold this in order to concentrate his fire.

This strong convention man had never attended a large gathering of pharmacists in his life until he went to Boston in 1905 to be present at the meeting of the National Association of Retail Druggists, and since then he has never missed a large gathering of pharmacists if it were possible for him to get away and go to it, and declares he never will so long as he has the price and the health. In 1908 he was made a member of the executive committee of the N. A. R. D., and was re-elected the following year.

Mr. Ladish is what is popularly known in baseball circles as a "fan," and he is very fond of good music and good books. The fellow who keeps the corner grocery not far from the Ladish store once gave utterance to this sapient remark: "W'en t'ings go wrong mit me I get a chag on; when Ladish is sore over somethings he puya a set of books, or a clock or a cash register." Reader, go thou and do likewise.

Dentists in the Navy.

According to press dispatches from Washington, Uncle Sam's bluejackets and fighting ships may have to show their teeth to an enemy some day. So the long-headed house committee on naval affairs favors the establishment of a dental corps in the navy. A bill to that effect has been introduced and will doubtless become a law if all the dentists in the country will plug it along, as the slangy say.

The bill creates a corps of thirty dentists. The age limit for entrance is from twenty-four to thirty-two years. Each applicant will be appointed on his merits, but he must have a professional pull, of course. At the end of eleven years, by the naval system of promotion, the thirty will have resolved themselves automatically into one lieutenant commander, four passed assistant surgeons and twenty-five assistant surgeons.

Uncle Sam gives his sailormen ice cream for dinner three times a week. The hardest tar cannot enjoy ice cream if an exposed nerve is throbbing in one of his molars. The ship's dentist will keep the crew's teeth well filled and well filed. Also, presumably, the marine dental surgeons will sharpen the eye teeth and wisdom teeth of naval apprentices, so that they will learn quicker that a ship's port and starboard lights are not lamps in a drug store window.

If a man-o'-war is sailing in the teeth of the wind the dentist aboard can act as navigator, and if a wave destroys her bridge he can supply a new one easily. If a cruiser gets in the doldrums the passed assistant surgeon can give her nitrous oxide gas and make her laugh. There will be a thousand uses for dentists in the navy.

Prof. Goodman of the School of Pharmacy of the University of Illinois has presented to the school an oil portrait of the late Prof. Hallberg. Prof. Goodman is the artist.

Cleveland Medico-Pharmaceutical Section.

What was perhaps the most satisfactory meeting ever held by the Medico-Pharmaceutical Section of the Cleveland (Ohio) Academy of Medicine occurred January 27th.

The first business transacted was the annual election which resulted in the reseat of L. C. Hopp, as chairman; M. G. Tielke, as vice-chairman; and Dr. J. B. McGee as secretary; Dr. Nathan Rosewater was elected a member of the council of the academy to represent the section.

Dr. Rosewater read the report of the committee appointed a year ago to consider the advisability of using saccharin in pharmaceuticals. He stated that four out of the five members of the committee were of the opinion that the use of saccharin as a sweetener was unobjectionable, unless deception was practiced. Dr. Rosewater reported he had personally taken 60 grains of saccharin in divided doses during one evening and experienced absolutely no deleterious effects. [It should be noted that the effect of continued use is not considered here, nor is its effect even in small quantities on debilitated persons.] It was decided that in view of the expected report of the Remsen referee board relative to saccharin the section would take no action on the report before it other than to receive it and discharge the committee with thanks.

The two papers of the evening were: "Ointments from the Pharmaceutical Side," by L. C. Hopp; and "Ointments from the Therapeutical Side," by Dr. W. T. Corlett.

Mr. Hopp outlined the work thus far done by sub-committee 12, of the U. S. P. revision committee, with a view to securing opinions of the medical men. He spoke of the proposition to drop the cerate group and the advisability of getting recipes for several ointment bases: simple ointment, a wool-fat petrolatum base, a base similar to cold cream. He objected to the recognition of a 33 per cent. mercurial ointment in addition to the 50 per cent. product. He considered the 10 per cent. ointments of the two oxides of mercury too strong; and thought that the ointment of phenol was unsatisfactory, both as to base and strength.

Dr. Corlett, a prominent dermatologist, outlined the history of ointments, and classified them into (a) protective, (b) astringent, (c) stimulating, (d) antiseptic, and (e) penetrative. He emphasized that these several results can be obtained only by intelligent choice of the base: Petrolatum, for protective ointments; wool-fat for penetrative ointments; for astringent ointments, wool-fat-petrolatum; for stimulating ointments, wool-fat-lard; and for antiseptic ointments, a petrolatum-lard combination. He said that he had tried all the modern substitutes for ointments: pastes, pencils, mulls, etc., and had come to the conclusion that after all, ointments are the most reliable products for skin medication.

In the discussion that followed the papers it was pointed out that in Ohio at least, no product bearing a pharmacopoeial name could be sold unless of pharmacopoeial strength and that as the 33 per cent. mercurial ointment containing petrolatum was intended solely as a non-absorbent vermin killer, while the 50 per cent. form was intended to be absorbed to obtain the constitutional effects of mercury, the two served entirely different purposes, and each supplied a marked need.

The suggestion to drop the class of cerates met with general approval.

It was recommended that both ointments of the oxides of mercury be dropped in revising the Pharmacopoeia, leaving the physician to prescribe strength and base.

Ohio Druggists Banquet Physicians.

The Ohio Valley Druggists' Association, of Cincinnati, demonstrated its activity on the evening of January 18th, when it entertained the local members of the medical profession, at a banquet. This affair, it was generally conceded, was one of the most successful in the history of the association. The dinner was an elaborate one and the guests numbered about four hundred, three-fourths of whom were prominent physicians of Cincinnati and nearby cities.

President Kutchbauch of the O. V. D. A. introduced as toastmaster Prof. John Uri Lloyd, who after one of his characteristic talks called up Mayor Schwab, who is a physician and pharmacist. The Mayor spoke of the real need for a closer and better relationship between the two professions.

Dr. Frederick Forchheimer, the next to respond, reviewed the changes which had taken place in pharmacy

and dwelt on the necessity of coming back to first principles. He urged pharmacists not to fall into commercialism.

Secretary Thomas H. Potts, of the National Association of Retail Druggists, was present as a guest of honor and set forth his reasons why a closer relationship was desirable and necessary between doctor and druggist. He was of the opinion that the druggist was not alone to blame for the present conditions.

Prof. James H. Beal, of Scio, Ohio, spoke of the benefits to public welfare through co-operation of the several branches of the healing profession. He also called attention to the necessity of laws to restrict the activity of itinerant vendors of medicines.

Dr. C. A. L. Reed, a strong advocate of a national bureau of health, made this his topic. He did not favor the recently introduced Mann bill to enlarge the public health bureau of the treasury department.

Other speakers were Dr. Charles L. Bonifield; Prof. W. C. Anderson, of Brooklyn, N. Y.; and F. W. Kisker, of Cincinnati.

Ethical Drug Stores.*

By E. W. WATSON, M. D.

Some one queries, "What is an ethical drug store?" Ethical preparations we know. They are, for the most part, urged upon our notice by manufacturing drug firms and the name of their assiduous agents is legion; they come when we are most busy and we cast them out. Ethical prescriptions are prescriptions calling for one or more samples, compounded to order by a reputable pharmacist, made agreeable, if you wish, by flavors and syrups and innocent elixirs; but ethical drug stores? Surely, one can picture them in the optic of the mind; we can call up a sample at will. There are cut-glass bottles of chaste design in the front windows, containing colored liquids, as is the custom and sign manual of the drug store of old, but the colors are more refined and the fluids in the bottles are free from fungus and deposit. There is no other display in the window save a draping of soft purple or rich maroon velvet for a background. Inside we enter a reception room whose marble floor is spotless unless it rains and the streets are muddy. There are cases at the sides, but their contents are never conspicuous, being articles of real worth and necessity, tooth-brushes and hair-brushes and soaps of rare aroma, genuine imported perfumes, all these and many like articles lurk modestly in the shadows, never flaunting their virtues.

A table stands in the center spread with recent magazines of the most select type where the weary waiter, sinking into one of the comfortable chairs can find, in literature, relief from the tedium of delay (generally, however, the prescriptions are sent home by messenger). There is no soda-water fountain and no assiduous fly, but at the rear hang heavy curtains of Eastern stuff shutting out alike the pounding of pestle, the clink of glass, and the clatter of tongues. They add solemnity to the waiting-room and mystery to all beyond it; life and death lurking, as it were, behind their heavy folds.

If voices come to us, they are mysterious and muffled, if unethical preparations lie in wait there they are at least unseen; if mistakes are made we shall never know it. In short, when the bottle or the box of pills appears, neatly wrapped, there is about it a subtle aroma of secrecy which in these days of mental science undoubtedly enhances their therapeutic value. Such is the ethical drug store. The purple hangings swing sadly apart, and the proprietor of all this studied simplicity and stern conformity to ethical principle stands revealed; a being not quite a philosopher yet greater than an undertaker; a Delphic oracle of the gentler sort, in voice and mien, the genius of it all, the real Ethical Pharmacist.

In a recent issue of a newspaper of his city W. M. Bartlett, of Salem, Mass., advertised his "apothecary shop" as "a real drug store where prescription work of the highest grade is a specialty, and is justly given that recognition and prominence which its great importance demands—our entire time and undivided attention are given solely to compounding and dispensing the best quality of drugs and medicines. We are therefore perfectly free from the incubance of the above-named 'side lines' which have always seemed to us to have no more place in a drug store than tailoring has in a doctor's office."

*From Medical Notes and Queries.

A Wail from a Rhymer.*

Sure, 'tis one big drop that has hit this shop
 Since the winter of 'eighty-nine,
 When I landed here with full joyous cheer
 A snug little fortune to find—
 Which same, I regret, has even as yet
 Eluded this skill'd grasp of mine.

I could mixtures shake and smooth plasters make
 And roll out a slick, shiny pill;
 But trade-custom tricks proved a mussy fix
 That entangled me 'gainst my will—
 I, being a "grad" became somewhat sad
 When ethics they threatened to kill.

Mechanic-made pills are causing us ills
 By chasing pill-rolling away;
 We buy these by tons—and sell 'em by ones
 Since sickness no longer's au fait.
 And so-styled "Science," likewise, "Reliance,"
 Have aided finances to sway.

Then, too, there are laws with more or less flaws
 Our trafficking to regulate.
 Still faker and quack with hook and with knack
 The man and the coin separate.
 Yea, any old hoax e'en porkers in pokes,
 Afford that about which they prate.

They juggle the sick with many a trick.
 From A through the whole line to Z.
 They make folks believe and then they deceive
 Their credulous mentality.
 Yes; it's one big drop that has hit this shop
 Since I 'listed in pharmacy.

The Montgomery County (Pa.) Retail Druggists' Association recently elected the following officers for the year: President, W. H. Read, of Norristown; vice-presidents, M. M. Osborne, of Elkins Park; and Theodore Jacobs, of Norristown; secretary, L. W. S. Jones, of Norristown; treasurer, S. K. Geagle, of Norristown; executive committee, John Gearhardt, T. F. McCoy, John Donnelly, and F. W. Prichet.

The Milwaukee Pharmaceutical Association held its annual meeting and election of officers, February 2d. S. A. Eckstein was re-elected president. His associate officers are: Vice-president, J. H. Schmitt; secretary, W. F. Kaiser; treasurer, L. H. Kressin; members of the executive committee, L. G. Mack, J. H. Schmitt, Theodore Biederman, Peter Glycz, J. J. Posschl, W. F. Kaiser, and Otto Hackendahl.

The annual meeting of the St. Louis Retail Druggists' Association was held January 17th. Officers were elected as follows: President, H. O. A. Huegel; vice-presidents, J. M. Good and J. A. Fritz; treasurer, George Hausgen; secretary, C. W. Stockhausen; field secretary, E. A. Sennewald; directors, A. W. Pauley, O. F. Traubel, E. H. Wolff, O. J. Cloughly, and Dr. W. A. Hoelscher.

At the annual meeting of the Minneapolis Retail Druggists' Association, held January 19th, officers were elected as follows: President, Truman Griffin; vice-president, Sherman Brownlee; treasurer, Otto Graben; secretary, E. A. Klenert; and members of the executive committee, Thomas Voegeli, C. H. Huhn, John Danek, A. J. Kline, and A. D. Thompson.

The Rochester (N. Y.) Pharmaceutical Association held its annual meeting January 6th. Officers for the ensuing year were elected as follows: President, E. E. Chilson; vice-president, George Hahn; secretary, J. E. Cooney; and treasurer, C. W. Peck.

J. K. Lilly, president of Eli Lilly & Co., of Indianapolis, was entertained at dinner on the evening of January 23d, by the heads of the departments of the home office. The occasion was the eve of Mr. Lilly's departure for a pleasure trip to the Mediterranean.

P. W. Snyder, of Hollidaysburg, Pa., a member of the executive committee of the Pennsylvania Pharmaceutical Association, is now a member of the State legislature.

*This rhymed bewailing of conditions in the gentle art of pharmacy is from the pen of a druggist of this city who, like many of his fellows, has been discomfited by the present-day trend of things pharmacial.

Pharmacy's Needs.*

At the present time, what is needed more than anything else in North Dakota, is a law requiring every person to register the medicine intended to be sold by a non-registered pharmacist. Let this registration be made in each county in the State. Let no license be granted so long as this product is in violation of our present drug or beverage laws, or where fraud or deception is being practiced, or where exaggerated, unwarranted and false claims are made with regard to the properties or use of any drug or medicine intended to be sold in the State.

We do not need more drug stores. We need more efficient help in our stores and less competition. There is hardly a town with two or more drug stores where one would not serve the public better than the two and be able to carry a larger and better line and employ more efficient help. We need more competent assistants, not more registered druggists. We need greater efficiency, less competition and better public service. This can be made possible only when we have the necessary legislation raising the standard for registered pharmacists.

Planning for the Silver Jubilee of the Northwestern School.

The twenty-fifth anniversary of the founding of the Northwestern University School of Pharmacy and the completion of the twenty-fifth year of Prof. Oscar Oldberg's incumbency as dean of the school will be celebrated early in April. It is planned to make the occasion a "homecoming week" for alumni and former students and it is expected that every class will be well represented. The alumni are raising a fund to be used in providing a permanent memorial to commemorate this event in the school's history.

What We Drink, Smoke and Chew.

According to records kept by the United States internal revenue bureau, we consumed in this country during the last fiscal year 163,000,000 gallons of distilled spirits, 30,000,000 gallons more than the year before; 59,485,117 barrels of fermented liquors, an increase of 3,000,000 barrels; 7,600,000,000 cigars, 160,000,000 more than the previous year; 6,830,000,000 cigarettes, an increase of 1,000,000,000 "coffin nails"; and 402,000,000 pounds of plug, fine-cut, cube-cut, granulated, or sliced smoking or chewing tobacco or snuff, 4,000,000 pounds more than the year before.

By the way, what kind of a country did "Uncle Joe" Cannon say this was?

Boston Association.

The thirty-sixth annual dinner meeting of the Boston Association of Retail Druggists was held on the evening of January 24th. Among the guests of the association were State Treasurer E. A. Stevens and Hon. Charles V. Blanchard.

Officers for the ensuing year were elected as follows: President, J. Arthur Bean; treasurer, J. H. Ingraham; secretary, H. C. Wiggin; members of the executive committee, E. H. La Pierre, H. W. Bowman, F. L. Carter, Jr., H. A. Estabrook, P. B. Thompson, J. W. Lowe, and J. R. Sawyer; membership committee, A. H. Bartlett, A. M. Dow, J. O. Jordan, W. F. Sawyer, and G. E. Hodges.

Consular advices from Lisbon, Portugal, are to the effect that by a provisional decree issued September 28th, last, the exportation from that country of cork in an unmanufactured state is prohibited. This decree is intended to improve the condition of the domestic cork industry. By a decision of November 7th, the prohibition is to apply to all cork, unless boiled or scraped and cut out and carefully packed.

Over one hundred doctors and druggists were present at the third annual banquet of the Vigo County (Ind.) Retail Druggists' Association and the Vigo County Medical Society, held at Terre Haute, January 23d. The druggists were the hosts. Vaudeville acts, motion pictures, and music were provided for the entertainment of the guests. The doctors are planning to entertain the druggists in the near future.

*Excerpts from a bulletin of the North Dakota Agricultural College.

News of the Pharmacy Boards.

List of Board Secretaries.

In the following list are to be found the names and addresses of the secretaries of the various boards of pharmacy of the country. When the date and place of the next meeting of a board are known they are given also.

Secretaries are requested to keep us informed as to dates and places.

ALABAMA—E. P. Galt, Selma.
ARIZONA—April 12th, at Phoenix. A. G. Hulett, Phoenix.
ARKANSAS—May 8th, at Little Rock. J. F. Dowdy, Little Rock.
CALIFORNIA—Louis Zeh, San Francisco.
COLORADO—March 17th and 18th, at Denver. S. L. Bresler, Denver.
CONNECTICUT—March 7th, at Hartford. J. A. Leverty, Bridgeport.
DELAWARE—April 4th, at Newark. Albert Dougherty, Wilmington.
DISTRICT OF COLUMBIA—April 13th and 14th, at Washington. S. L. Hilton, Washington.
FLORIDA—D. W. Ramsaur, Palatka.
GEORGIA—C. D. Jordan, Monticello.
IDAHO—April 11th, at Idaho Falls. J. M. Starrh, Shoshone.
ILLINOIS—March 7th, at Chicago. F. C. Dodds, Springfield.
INDIANA—April 11th and 12th, at Indianapolis. W. H. Rudder, Salem.
IOWA—April 4th, at Des Moines. E. J. Moore, Des Moines.
KANSAS—W. E. Sherriff, Ellsworth.
KENTUCKY—April 11th and 12th, at Louisville. J. W. Gayle, Frankfort.
LOUISIANA—May 9th to 11th, at New Orleans. F. A. Earhart, New Orleans.
MAINE—April 12th and 13th, at Augusta. F. W. Bucknam, Skowhegan.
MARYLAND—April 12th and 13th, at Baltimore. Ephraim Bacon, Roland Park.
MASSACHUSETTS—Every Tuesday between September 1st and July 1st, at Boston. P. J. McCormick, Boston.
MICHIGAN—March 21st to 23d, at Grand Rapids. E. J. Rodgers, Port Huron.
MINNESOTA—April 18th, at Minneapolis. C. T. Heller, St. Paul.
MISSISSIPPI—April 4th, at Jackson. L. H. Wilkinson, Greenwood.
MISSOURI—March 13th, at Springfield. C. E. Zinn, Kansas City.
MONTANA—T. M. Kehoe, Billings.
NEBRASKA—A. V. Pease, Fairbury.
NEVADA—May 3d, at Reno. R. L. Prouty, Tonopah.
NEW HAMPSHIRE—March 29th, at Nashua. F. H. Wingate, Nashua.
NEW JERSEY—April 20th, at Trenton. H. A. Jorden, Bridgeton.
NEW MEXICO—A. J. Fisher, Santa Fe.
NEW YORK—May 24th and 25th, at New York, Albany and Buffalo. W. L. Bradt, Albany.
NORTH CAROLINA—F. W. Hancock, Oxford.
NORTH DAKOTA—March 20th, at Fargo. W. S. Parker, Lisbon.
OHIO—June 20th to 23d, at Columbus. F. H. Frost, Columbus.
OKLAHOMA—April 11th and 12th, at Oklahoma City. J. C. Burton, Stroud.
OREGON—March 14th and 15th, at Salem. C. G. Huntley, Oregon City.
PENNSYLVANIA—L. L. Walton, Williamsport.
RHODE ISLAND—March 7th, at Providence. J. E. Brennan, Pawtucket.
SOUTH CAROLINA—March 15th, at Charleston. F. M. Smith, Charleston.
SOUTH DAKOTA—April —, at Brookings. E. C. Bent, Dell Rapids.
TENNESSEE—April 18th, at Memphis. I. B. Clark, Nashville.
TEXAS—R. H. Walker, Gonzales.
UTAH—April 18th and 19th, at Salt Lake City. W. H. Dayton, Salt Lake.
VERMONT—D. F. Davis, Barre.
VIRGINIA—April 25th, at Richmond. T. A. Miller, Richmond.
WASHINGTON—P. Jensen, Tacoma.
WEST VIRGINIA—May 5th and 6th, at Wheeling. A. Walker, Sutton.

WISCONSIN—April 11th and 12th, at Madison. Edward Williams, Madison.
WYOMING—C. B. Gunnell, Evanston.

Florida Board.

At a meeting of the Florida Board of Pharmacy, held at St. Augustine, January 24th and 25th, officers were elected as follows: President, E. Berger, of Tampa; vice-president, Leon Hale, of Tampa; secretary and treasurer, D. W. Ramsaur, of Palatka. The other members of the board are H. H. D'Alemberte, of Pensacola; and W. D. Jones, of Jacksonville.

Resolutions were adopted urging the better enforcement of the State pharmacy law. Several amendments to the present law were proposed and will be presented at the coming meeting of the State legislature.

Fourteen applicants for registration were examined at this meeting.

Illinois Board.

At the January meeting of the Illinois Board of Pharmacy, held at Springfield, sixteen of the fifty-two applicants for registration as pharmacists; eleven of the twenty-one candidates for assistants' licenses and the only applicant for local registration passed the examinations. Their names follow:

As pharmacists—J. M. Dodd, J. F. Hayes, A. W. Hotz, B. J. Hourigan, Wladislave Hoyer, Barney Kite, Frank Lypski, E. B. McCann, E. L. Miles, A. H. Williams, and Otto Zeman, all of Chicago; J. B. Anderson, of Peoria; E. H. Elder, of Decatur; Otto Hohenstein, of Bloomington; Andrew Richmond, of Waukegan; and J. H. Stewart, of La Grange.

As assistants—Clifford Akers, of Taylorville; Sister Bernardine, of Springfield; C. H. Chase, of Effingham; Casimir Czbanski, of Chicago; V. C. Dowling, and Sister Eusebie, both of Springfield; Mahlon Hess, Jr., of Kankakee; Mrs. Edith Mitchell, of Clinton; C. V. Retzky, of Chicago; and P. H. Sheridan and C. J. Strubel, both of Alton.

Local registration was granted to L. A. Ducharme, of St. Anne.

The next meeting of the board will be held at Chicago, March 7th.

Iowa Board.

Of a class of sixty applicants for registration examined by the Iowa Board of Pharmacy December 6th, at Des Moines, the following twenty-one were successful:

Ulysses Cary and C. H. Crewse, both of Des Moines; H. J. Cunningham, of Dyersville; O. C. Fleener, of Clarinda; David Gildstein and J. J. Glenn, both of Des Moines; J. W. Hanson, of Kensett; John Heerema, of Pella; H. E. Henneberg, of Des Moines; W. J. Hilmer, of Waterloo; Oscar Hufford, of Des Moines; C. H. Jones, of Ottumwa; C. W. Leafstone, of Sioux City; A. F. Lohr and B. R. Murphy, both of Des Moines; L. E. Page, of Central City; H. M. Sale, of Afton; C. M. Serbein, of Maxwell; H. B. Storm, of Grinnell; W. M. Sutter, of Storm Lake; and J. M. Wheeler, of Marshalltown.

Kentucky Board.

Examinations were conducted by the Kentucky Board of Pharmacy January 11th and 12th, at Covington. There were fourteen applicants for registration of whom the following were successful:

As pharmacists—G. G. Howell, of Columbus, Ohio; W. H. Mahood, of Catlettsburg; J. E. Meacham, of Sturgis; and G. V. Theobald, of Williamstown.

As assistants—J. F. Conwell, of Covington; G. J. Ellis, of Glasgow; E. C. Klein and A. W. Ross, both of Cincinnati, Ohio; and T. P. Taylor, Jr., of Louisville.

The next meeting of the board will be held at Louisville, April 11th and 12th.

Massachusetts Board.

Three examinations were conducted during the month of January by the Massachusetts Board of Pharmacy. Forty-six applicants in all were examined for registration. Twelve were successful as pharmacists and eight as assistants. Their names are:

As pharmacists—G. J. Boucher, of Fall River; C. L. Cordeau, of Lowell; H. J. Duffy and R. T. Fournier, both of

Fall River; Adolph Gorshel, of Chelsea; R. M. Hayward, of Stoughton; A. L. Marcoux and G. F. Martin, both of New Bedford; N. H. Nevler, of Boston; P. M. Smith, of Worcester; and Joel Weiner and W. D. Wheeler, both of Boston.

As assistants—Nathan Arkus, of Worcester; E. E. Beauvais, of Holyoke; T. C. Blondeau, of Auburn; E. F. Houle, of Lowell; J. T. Lindley, of Melrose; F. C. Reeves, of Boston; T. E. Soucy, of Taunton; and E. S. Troupin, of Worcester.

Michigan Board.

Examinations were held by the Michigan Board of Pharmacy, at Ann Arbor, January 17th to 19th. Fourteen applicants for registration as pharmacists and twelve candidates for assistants' certificates were successful. They are as follows:

As pharmacists—Emily Burt, of Blanchard; H. W. Goodspeed, of Lansing; A. L. Gray, of Bay City; L. P. Heeres, of Muskegon; R. W. Johnson, of Three Rivers; T. C. Lee, of Grand Rapids; G. W. Lindstrom, of Muskegon; N. A. Liponetzky, of Detroit; R. H. Lloyd, of Columbiaville; L. T. Mans, of Kalamazoo; R. C. Morris, of Detroit; E. M. Snyder, of Mecosta; R. E. Walker, of Marlette; and N. J. Winslow, of Cass City.

As assistants—B. S. Barker, of Caledonia; G. E. Bowels, E. H. Couborn, and N. A. Dodson, all of Detroit; G. A. Fitch, of Thompson; F. M. Gibson, of Millington; H. C. Millman, of Ann Arbor; F. W. Norton, of Tower; M. J. Richert, of Saginaw; C. A. Smith, of Three Rivers; E. H. Torman, of Detroit; and G. R. Whitney, of Rose City.

The next meeting of the board will be held at Grand Rapids, March 21st to 23d.

Minnesota Board.

Seventy-one applicants for registration were examined at a meeting of the Minnesota Board of Pharmacy held in January, at Minneapolis. The following passed:

As pharmacists—D. C. Alcott, of St. Paul; James Baillie, of Minneapolis; W. M. Humphries, of Moorhead; and J. J. Mausback, of Little Falls.

As assistants—T. G. Arneson, of Montevideo; F. J. De Cock, of St. Paul; R. G. Gash and T. A. Nash, both of Minneapolis; R. E. Ohm, of Brainerd; Harry Sansby, of St. Paul; C. J. Yoho, of Minneapolis; and D. W. Zierke, of Hutchinson.

This being the annual meeting of the board, officers were elected as follows: President, Robert L. Morland, of Worthington; and secretary, Charles T. Heller, of St. Paul.

The next meeting will be held during the week beginning April 17th.

New Hampshire Board.

A regular meeting of the New Hampshire Board of Pharmacy was held January 25th, at Nashua. Of fourteen applicants for registration, the following were successful:

J. B. Gorman, of Dover; J. G. Gregorie, of Manchester; P. E. Picard, of Nashua; and E. R. Wadleigh, of Lancaster.

The next meeting of the board will be held at Nashua, February 22d.

New Jersey Board.

The New Jersey Board of Pharmacy met at Trenton January 19th and 20th. There were twenty-nine successful applicants for registration as pharmacists and fourteen as assistants. They are:

As pharmacists—L. C. Arnold, of Newark; R. J. Brown, of Trenton; J. H. Bynum, of Atlantic City; Wayne Cadwallader, of Newark; L. E. Christopher, of Philadelphia, Pa.; F. B. Coulbourn, of Westtown, Pa.; H. W. Davey, of Long Branch; Alfonso De Mercurio and F. W. Engel, both of New York, N. Y.; F. B. Fee, of Elizabeth; M. W. Friedman and Anna Goldberg, both of Newark; J. L. Hackenberger and H. S. Hughes, both of Trenton; A. A. Karlin, of New York, N. Y.; W. C. Lloyd, of South Orange; Joseph Menitove, of Jersey City; N. G. Minton, of Brooklyn; D. A. Monheit and F. T. Ogden, both of New York, N. Y.; Max Rosenthal, of Newark; Harris Schlesinger, of New York, N. Y.; W. S. Sigler, of Newark; J. A. Stackhouse, of Asbury Park; H. J. Stockhoff, of Rutherford; E. K. Stratton, of Salem; Emanuel Weiss, of Newark; J. R. Young, of Morristown; and Jacob Zimmer, of Perth Amboy.

As assistants—Abram Abelsky, of Jersey City; H. LaD.

Blow, of Collingdale, Pa.; Rudolph Breitenfeld, of Hoboken; Raymond Flett, of Atlantic Highlands; George Freeman, of Trenton; C. F. Hoffman, of Hoboken; Lewis Horwitz, of Bayonne; W. G. Kroemmelbein, of Elizabeth; Ambrose Pancoast, of Millville; G. H. Sleator, of Atlantic City; T. R. Stephan, of Trenton; Frederick Theile, of West Hoboken; R. F. Tyler, of Atlantic City; and Claude Van De Mark, of Harrison.

The next meeting of the board will be held at Trenton, April 20th and 21st.

Ohio Board.

The Ohio Board of Pharmacy at a meeting held at Columbus, January 10th and 11th, examined one hundred and six applicants for registration. Forty-five were successful as pharmacists and nineteen as assistants. The names are:

As pharmacists—H. A. Anderson, of Tiffin; A. J. Bohrer, of Leipsic; W. L. Colloredo, of Waynesburg; A. H. Craig, of Warren; Gilbert Crawford, of Cleveland; R. L. Crowe, of Caruthersville, Mo.; J. B. Day, of Findlay; D. F. Davis, of Newark; C. O. Ewing, of Carey; A. H. Finley, of Washington Court House; M. N. Ford, of Delphos; O. M. Foust and Emma W. Gaertner, both of Toledo; D. C. Giffin, of Ashland; H. R. Gilson, of Steubenville; H. F. Hagedorn and A. E. Hagedorn, both of Cleveland; G. F. Hart, of Newark; Harry Haverkamp, of Cincinnati; H. H. Hirsland, of Napoleon; H. H. Hord, of Columbus; F. A. Horn, of Dayton; J. A. Kurlander, of Cleveland; J. W. Lafferty, of Sharon, Pa.; Edward Lindeman, of Cincinnati; W. E. Luthy, of Cleveland; O. R. Moore, of Mingo Junction; J. H. Neal, of Gallipolis; K. D. Petrie, of Celina; Frank Porembski, of East Youngstown; C. V. Purvis, of Payne; G. A. Reynolds, of Akron; Otto Rhine, of Wapakoneta; F. L. Schulkers, of Covington; A. C. Serra, of Cleveland; M. F. Shaff, of Napoleon; O. S. Simpson, of Arcanum; I. P. Smith, of Youngstown; C. P. Sohn, of Allegheny; J. F. Starner, of Mt. Vernon; G. G. Strenick and O. O. Wentling, both of Ada; G. H. Wilson, of Columbus; C. J. Vortkamp, of Lima; and H. C. Zimmerman, of Dayton.

As assistants—L. W. Alexander, of Cincinnati; F. L. Borden, of Cleveland; C. E. Brown, of Marietta; Fuller Butler, of Urbana; F. W. Clingan, of Columbus; F. H. Copernoll, of Toledo; Mary B. De Lee, of Covington; H. H. Kennedy, of Columbus; E. W. Kobath, of Oak Harbor; W. C. McManigal, of Logan; G. B. Morse, of Columbus; B. E. Newton, of Newcomerstown; E. A. Orwig, of Toledo; E. R. Roller, of Cleveland; William Schultz, Jr., of St. Bernard; Estel E. Shaffer, of Bidwell; F. E. Swartz and G. E. Turner, both of Columbus; and J. C. Weik, of Hamilton.

The next examination of the board will be held June 20th to 23d, at Columbus.

Oklahoma Board.

A regular quarterly meeting of the Oklahoma Board of Pharmacy was held January 10th and 11th, at Oklahoma City. Thirty-two candidates were examined; and the following were successful:

C. B. Baker and H. M. Bennett, both of Norman; F. R. Deans, of Fairfield; C. W. Holderman, of Pawnee; J. R. Kimbrough, of Oklahoma City; W. G. Maurer, of El Reno; R. W. Quackenbush and R. I. Roby, both of Wichita; D. E. White, of Asher; and A. R. Wilson, of Wynnewood.

The following received certificates as pharmacists without being examined, by virtue of their having been graduated by schools of pharmacy recognized by the board:

D. D. Bliven, of Hennessey; B. L. Brenner, of Rensselaer, Ind.; A. B. Clark, of Delta, Colo.; Cottie Cleeton, of Higbee, Mo.; Mira J. Cook, of Red Cloud, Neb.; A. J. Day, of Satartia, Miss.; C. W. Ermey, of Tulsa; E. E. Fabiano, of Kansas City; T. J. Fatherrel, Jr., of Natchez, Miss.; Alva Fisher, of Lentz, Ore.; J. H. Forrest, of South Omaha, Neb.; J. H. Freedman, of Kansas City, Mo.; B. F. Gilbert, of Natchez, Miss.; Ora E. Goldsmith, of Geary, Ind.; L. W. Gorton, of Chattanooga, Tenn.; M. A. Jett, of Valparaiso, Ind.; W. A. Johnson, of Hamburg, Iowa; A. T. Kridler, of Alva; Hugh McCaslin, of Snyder; R. M. Mendez, of Lares, Porto Rico; Y. C. Moore, of Sharon, Tenn.; H. S. Pope, of Baltimore, Md.; F. B. Raynale, of Sentinel; C. W. Reed, of Woodbine, Iowa; L. J. Roe, of Blue Jacket; E. R. Russell, of Atoka; A. L. Sittler, of Davenport, Neb.; S. S. Stewart, of Columbiana, Ohio; H. E. Tharp, of Denver, Colo.; E. F. Trolinger, of Nashville, Tenn.; W. H. Vawter, of La Fayette, Ind.; S. R. Washko, of Windber, Pa.; F. E. Wenham,

of Eldora, Iowa; G. E. White, of Bloomfield, Iowa; and H. V. Williamson, of Delta, Colo.

Through the reciprocal recognition of the licenses issued by the boards of other States, the following were registered without examination:

R. O. Carroll, of Claremore; F. H. Coulter, of Lehigh; F. J. Falter, of Dustin; M. T. Loeffler, of Mason, Texas; J. N. Mize, of Sapula; M. R. Odell, of Oklahoma City; and C. E. Vest, of Kansas City, Mo.

The next meeting of the board will be held at Oklahoma City, April 11th and 12th.

Oregon Board.

Sixty-two applicants for registration were examined at a meeting of the Oregon Board of Pharmacy, held at Oregon City, December 13th and 14th. Of this number the following thirty-eight were successful:

As pharmacists—F. S. Amick, of Ashland; Leonard Benninghoff, of Kenton; F. R. Bowersox, of Monmouth; G. E. Bradshaw, of Arleta; C. C. Bruch, of Portland; Almeron Crandall, of Brownsville; T. E. Crank, G. E. Eades, W. H. Fearnely and E. L. Frick, all of Portland; A. A. Gassard, of Nogales, Ariz.; H. E. Goodner, of Portland; G. C. Griffith, of Seattle, Wash.; H. C. Henderson, of Portland; Reinert Hetlesater, of Lents; W. L. Karr, of North Bend; J. P. Lowthean, J. A. McCall and V. E. McElwain, all of Portland; H. C. Mack, of Drain; G. R. Olin, G. V. Payns and A. W. Porter, all of Portland; Fred Powell, of Gresham; W. H. Prunk, of Salem; J. E. Rawlings, K. P. Scott, P. R. Shea, Moses Steinberg, R. W. Stevens, E. W. Suckow, and J. P. White, all of Portland; and H. L. Wilton, of Spokane, Wash.

As assistants—W. R. Bunn, F. M. Craig, and Wilfred Norby, all of Portland; A. W. Schlader, of Silverton; and F. J. Streibig, Jr., of Portland.

The next meeting of the board will be held at Salem, March 14th and 15th.

Rhode Island Board.

Only one applicant was examined at the meeting of the Rhode Island Board of Pharmacy, held February 7th, at Providence. He was H. I. Hough, Jr., of Providence, and he passed the examination.

The next meeting of the board will be held at Providence, March 7th.

Tennessee Board.

As a result of examinations conducted by the Tennessee Board of Pharmacy, January 17th to 20th, at Nashville, seven candidates received certificates of registration as follows:

I. H. Bilrey, of Nashville; E. A. McAdoo, of Troy; J. D. Martin, P. T. Rogers, and T. M. Smith, Jr., all of Nashville; C. D. Tedder, of Rockwood; and E. H. Webb, of Nashville.

At this meeting it was decided to adopt additional educational qualifications for examinations and after the July meeting candidates will be required to file with their applications for examination evidence that they have the equivalent of a grammar school education.

The next meeting of the board will be held at Memphis, April 18th.

Utah Board.

At a meeting of the Utah Board of Pharmacy, held at Salt Lake City, January 17th to 18th, seven applicants for registration were examined, of whom two were successful. These are:

B. K. Bridge, of Salt Lake City; and T. G. Lienhardt, of Ogden.

The next meeting of the board will be held at Salt Lake City, April 18th and 19th.

Wisconsin Board.

At a meeting of the Wisconsin Board of Pharmacy, held January 10th and 11th, at Madison, the following applicants for registration were successful:

As pharmacists—R. H. Barth, of Milwaukee; W. G. Cotanche, of Oshkosh; A. W. Deicken, of La Crosse; C. A. Erickson, of Soldiers Grove; E. N. Farber, of Milwaukee; James Hanson, of Sturgeon Bay; G. C. Jeske, L. F. Kozlowski, Frederico La Piana, and F. J. Pawlak, all of Milwaukee; F. A. Quilling, of Menomonie; C. C. Robertshaw, of Elkhart Lake; F. M. Scheele, of Wauwatosa; E. F.

Schmutzler, of Milwaukee; Max Tetzlaff, of Watertown; and William Weimar, of Dale.

As assistants—E. B. Arnold, of Lake Geneva; A. B. Averbook, of Superior; E. G. Bach, of Green Bay; W. J. Brennan, of Woodstock; Clarence Davidson, of Milwaukee; W. S. Hammersley, of Lake Geneva; R. D. Johnson, of Stanley; Arthur Merke, of Milwaukee; F. G. Pomeroy, of Kenosha; and B. P. Roska, of Port Washington.

Through the reciprocal recognition of the licenses issued by the boards of other States the following were registered without examination: W. B. Ackerman, of Fond du Lac; H. P. Harris and H. B. Hoeveler, both of Milwaukee; E. E. Leeson, of Sharon; and R. J. Morley, of Manawa.

The next meeting of the board will be held April 11th and 12th, at Madison.

About the Traveling Man.

The Druggist and Traveler.*

By J. P. GILMOUR.

The commercial traveler is greater than the ambassador, to whom he has been rhetorically compared, for he is often the courier of civilization, the propagator of progress and the pacificator of nations. Yet we often receive him coldly or cavalierly, treat him with scant courtesy and dismiss him as though he were a mendicant. It is a common complaint against the traveler that he wastes the shopkeeper's time, whereas, unless the latter is a mindless, shiftless creature, his time is saved, not lost, by the traveler's call.

The traveler should always be received hospitably. If you have nothing for him, infuse a little kindly warmth into your manner of giving him his turn-down. Should you have an order for him let him have it without needless palaver, for his time is as valuable as yours. It is bad morals, as well as bad business, to buy what is not required, or to buy too speculatively, simply because the buyer has not the courage and wisdom to say "no" and mean it.

The traveler is a good servant but a bad master, keep him, politely but firmly, in his place, and keep your own.

About Drug Drummers.

In examining the question of traveling salesmen a committee of the National Wholesale Druggists' Association brought to light some interesting facts. The committee mailed inquiries to 220 wholesale drug houses and received answers to about half of them. Using these answers as a basis it was able to give some details.

Eighty-three houses employed drummers on straight salary; 19 employed on commission, and 49 employed on salary and a commission on sales over a certain amount.

The smallest cost of a drummer was \$160 a month; the largest, \$485.34; and the average, \$251.88.

To the question, "How often do your salesmen visit their customers, 102 houses replied. Of these, 29 said from one to two weeks; 26 from two to four weeks; 15 from two to three weeks; 15 from one to four weeks; 2 from three to five weeks; 5 weekly; 4 every thirty to sixty days; 3 monthly; 3 weekly to four times a year.

Be Good to the Traveling Salesman.

The drummer is full of information, full of good nature, and always a gentleman, writes W. E. Sweeney, in the *American Grocer*. He is ready to give you points and his points are worth listening to. When I first became a buyer I was instructed to be courteous to the traveling man. The buyer that isn't misses many a plum. Your position may not be that of buyer, but you can show this man politeness in many ways. Besides you can learn a lot from him.

The life of a traveling man is not all honey drip syrup, but did you ever meet a successful one who was not opinionated—and very much so? So asks Milton Hartman in the *Pill Box*, and he then goes on to say that traveling puts a bob-tail on a man's kite, and disillusionizes him. A couple of years on the road are worth half a dozen in a college.

Seward W. Williams, for many years with Seabury & Johnson, of this city, is now with Bauer & Black, of Chicago.

"Did that medicine ever help anyone?" "Yes; the drug-gist. It's \$3 a bottle."—New York *Evening World*.

*From the Red Cross Messenger.

Obituaries.

LEO ELIEL.

One by one the leading men of the older generation of pharmacists are going over to join the great majority. Leo Eliel, of South Bend, Ind., died February 10th of apoplexy, being at his store and seemingly in good health when the fatal attack came on. He was sixty-six years old, having been born at Nentershausen, Hesse-Cassel, Prussia, in 1845. His father, who was a physician, came to America with his family when the son was a boy of eleven years, and settled at La Porte, Ind., where a brother of the elder Eliel was in business.

In those days German physicians in that part of the country experienced difficulty in having their prescriptions filled according to their own ideas, so, there being a little drug shop for sale, Dr. Eliel purchased it, and therein his three sons grew up, as the subject of this sketch once expressed it, "like kittens." Two of the brothers continued in the retail drug business at La Porte until they went to Minneapolis and embarked in the wholesale



LEO ELIEL.

branch of the trade, and one of them, J. C. Eliel, became a national figure in wholesale circles. In 1873 the brother who has just died began business on his own account at South Bend, where he remained to the end. His first store there was in the suburbs, but later he moved to the business part of the town and took a partner. The partnership was dissolved in 1899 and Mr. Eliel then spent a few months in the laboratories of Purdue University in order to familiarize himself with the advancement made in the technic of his profession. He then, January 1st, 1900, opened a pharmacy which he strove to conduct according to strictly professional ethics. He experienced much difficulty in educating the people of his city to an appreciation of his attitude, but succeeded in putting his business on a profitable basis. It was hard work to make the people understand why he did not recommend nostrums for their ills, or keep a fancy-goods bazaar.

In 1901-03 Mr. Eliel reorganized the department of pharmacy of the University of Notre Dame, in his city, in which he taught; and later resigned the professorship in order to give his individual time to his private interests.

Mr. Eliel was elected president of the American Pharmaceutical Association in 1906, and presided at the meeting held in this city the following year. He joined that association in 1882 and did much good work in it for pharmacy, but in a very quiet and unobtrusive manner. In 1887 he was made a member of the committee on prize essays. The next year he was put on the committee on commercial interests, and became chairman of that section the following year. He was thrice elected a member of the council, his second term expiring as his installation as president took place, and his third term beginning as he laid down the insignia of that office. From 1894 to 1900, the year in which the pharmacopœial convention was held, he was chairman of the association's committee on the revision of the Pharmacopœia. In 1893 he was elected first vice-president.

As in the American Pharmaceutical Association, so in the State organization, Mr. Eliel was an active but not a noisy worker. He was elevated to the presidency of the Indiana Pharmaceutical Association in 1886.

Personally Mr. Eliel was a man of pleasing manner, kindly expression and soft voice. His sense of humor was well developed, and his wit, while keen, was never obtrusive nor used to hurt the feelings of others. He was a close student of pharmacy and an unusually well-posted one. As a citizen he was always ready to do his part for the general good, and his name always went down, as a matter of course, on the list of those who could be depended upon to take part in any worthy public movement of a commercial, educational or musical nature. Mr. Eliel was a bachelor and lived with a sister. It had been his expressed intention soon to take an extended vacation to be spent in travel. He was a Mason and a Knight of Pythias.

CALEB R. KEENEY.

On February 1st, there passed away at Philadelphia one of the few remaining apothecaries of the apprenticeship days. This was Caleb Reynolds Keeney, born at Carlisle, Pa., in 1825, and a member of the apothecary's craft since 1842. Mr. Keeney was graduated by the Philadelphia College of pharmacy in 1846; and in April of the following year opened the drug store which he continued until his death.

Mr. Keeney was a member of the Society of Friends. His wife died a few months ago just at the end of the fifty-fifth year of their married life. A son and two daughters survive.

The appended appreciation of Mr. Keeney is from the pen of his long-time friend, Evan T. Ellis.

In the death of Caleb R. Keeney the dispensing drug trade has lost one of the landmarks of the profession. Mr. Keeney was born in Carlisle, and received his early education there. Coming to Philadelphia he was apprenticed to Henry C. Blair, who had one of the leading pharmacies of the city, at Eighth and Walnut streets, where Henry C. Blair, III, is now.

Mr. Keeney, at the termination of his apprenticeship, commenced business at Arch and Sixteenth streets, continuing it to the day of his death. His son has been associated with him for thirty-five years, and succeeds to the business. When Mr. Keeney first commenced there was a corn-field with an old post-and-rail fence at the opposite corner. Now it is in the midst of a densely built-up and populous neighborhood.

There are not many pharmacists in Philadelphia to-day who have remained so close to their calling. He was as Prof. Parrish used to say, "an oracle" in his vicinity; he was supposed to know every body of any account in his section, and generally did. Even to-day if we wish to ascertain the residence of any one unknown to us we are sure to inquire at the nearest pharmacy. Mr. Keeney saw many changes in his vicinage: old families vanished; new people came in; other stores at times came near him, but nothing could impair the confidence reposed in him and his pharmacy by his neighbors and the medical profession. Living, myself, for a time nearby and frequently dropping in I do not recall a proprietary or many of those inconsistent articles that nowadays in some stores take up more space than legitimate drugs, although there might have been out of sight enough for legitimate needs.

Mr. Keeney was graduated at the Philadelphia College of Pharmacy in the class of 1846. In the same class was the late Thomas S. Wiegand, so long connected with the college. He was a member of the college and for many years of the American Pharmaceutical Association. Of quiet tastes and retiring nature he won the esteem of all who were brought in contact with him.

HENRY I. TAYLOR.

Henry Irving Taylor, of Detroit, Mich., died January 3d, aged fifty-one years. Mr. Taylor was for thirty years connected with Frederick Stearns & Co., serving during the greater portion of that time in the capacity of manager of the Canadian branch. He was born at Ridgeville, Ohio, and received his pharmaceutical education at the University of Michigan. He is survived by a widow, a daughter and four sons.

Following are recently reported deaths of other persons in the pharmaceutical world:

MAXWELL ABERNETHY, of Jersey City, N. J.; January 16th, aged seventy-six years.

HARRY APPEGATE, of Hamilton, Ohio, aged forty years.

THOMAS ARNOLD, of Wichita, Kansas; January 29th, aged thirty-eight years.

GEORGE NEWELL BARRETT, of Jamaica Plain, Mass.; January 31st, aged seventy-three years.

HAROLD B. BATEMAN, of Savannah, Ga.; January 18th, aged twenty-four years.

DR. DANIEL A. CASELLA, of this city, January 30th, aged forty-eight years.

JOSEPH CORRIGAN, of Jericho, R. I.; February 5th.

THOMAS CUNNINGHAM, of Newburgh, N. Y.; December 30th, aged eighty-two.

THEODORE G. DE MOLL, of Washington, D. C.; January 27th, aged fifty-seven years.

CARL E. H. EBENDECK, of Whitestone, L. I.; February 10th, aged thirty-five years.

FRED B. ELY, of Owego, N. Y.; January 28th.

WILLIAM FAIRFIELD, of Boston, Mass.; aged fifty-one years.

DR. THEODORE F. FIEMP, of St. Louis, Mo.; aged thirty-eight years.

E. H. GILSON, of Paducah, Ky.; aged forty-four years.

L. T. GWIN, of Cleveland, Miss.; January 28th.

J. M. HANNA, of Murphysboro, Ill., January 16th, aged sixty-five years.

ARTHUR MORGAN HOBBS, of Brooklyn, N. Y.; January 30th.

HEHRY W. HOEFEN, of Rochester, N. Y.; recently.

WILLIAM G. HOWARTH, of Chester, Pa.; January 23d.

E. B. KAIGH, formerly of San Antonio, Texas.

ALBERT D. KENNEDY, of this city, at Somerville, N. J.; recently.

WILLIAM H. LEICKHARDT, of Nashville, Tenn.; aged sixty-seven years.

JAMES C. LOWRANCE, of Little Rock, Ark.; January 14th, aged seventy years.

HARRY M. MCCLAREN, of Sewickley, Pa.; January 20th, aged forty-one years.

WILLIAM COWPER MCPIKE, of Kansas City, Mo.; February 3d, aged seventy-four years.

Dr. E. MARSH, of Alton, Mo.; January 13th, aged seventy-eight years.

THOMAS R. MORRIS, of Pittsburg, Pa.; January 20th, aged fifty-four years.

CHARLES RAPPE, of Albany, N. Y.; January 21st, aged thirty-three years.

CHARLES F. SAUTER, of Jamaica, N. Y.; January 18th, aged fifty years.

GEORGE H. SCHRACK, of Philadelphia, Pa.; February 1st, aged ninety-two years.

E. B. SEARS, of Denver, Colo.; January 26th, aged thirty years.

HENRY NATHANIEL SHROM, of Greenville, Pa.; February 10th, aged seventy-nine years.

Dr. JOSEPH F. SOMMERHOFF, of Bloomfield, N. J.; December 25th, aged forty-five years.

ALBERT HALSEY SWEET, of Milford, Mass.; January 15th, aged sixty-eight years.

JOHN M. THORNTON, of Des Moines, Iowa; January 14th, aged ninety-two years.

RICHARD H. VENABLE, of Louisville, Ky.; January 25th, aged sixty-nine years.

WALTER CHARLES VON DER ESPT, of Louisville, Ky.; January 14th, aged forty-eight years.

ROBERT ELTON WILLIAMS, of Hampton, West Va.; January 22d, aged thirty-five years.

JOHN H. WOOD, of Miami, Fla.; January 15th, aged sixty-eight years.

Horace Franklin Whitman, president of the firm of Stephen F. Whitman & Son, Inc., manufacturing confectioners, of Philadelphia, Pa., died January 9th after an illness of many months. He was born at Philadelphia in 1848, and was graduated from Yale with the class of '69. Mr. Whitman was a member of many organizations and a prominent Mason. He is survived by a widow and one daughter.

Harlow E. Woodward, of Boston, Mass.; aged sixty years, is dead. Mr. Woodward was reputed to be the original "cutter" of prices on medicines. He was an authority on early New England and American history. He had a fondness for literature, and at one time owned *Old Curiosity Shop*, a magazine from which was developed the *Ladies' Home Journal*.

J. C. Turner, a traveling salesman for the firm of Schieffelin & Co., of this city, died at his home near Columbus, Ga.; December 25th. Mr. Turner was well known in the States of Florida, Georgia and Alabama, and practically died in harness, being stricken with paralysis at Girard, Ala., while talking to a customer.

Hawthorne Hill, for ten years associate editor of *The India Rubber World*, died in this city, February 2d. He was born at Marion, Ky.; and was fifty-three years of age. Mr. Hill was formerly connected with the metropolitan daily press.

George Arthur Plimpton, a member of the firm of Plimpton, Cowan & Co., wholesale druggists of Buffalo, N. Y.; died January 13th, after a month's illness. He is survived by a widow and two sons.

Ernest George Riefflin, only son of George T. Riefflin, of this city, died on January 21st, at Litchfield, Conn.; aged twenty-one years.

Mrs. Kate Faber, wife of Sidney Faber, of this city, former secretary of the eastern branch of the old New York Board of Pharmacy, died recently at South Orange, N. J.

National Association of Pharmacologists.

At the January meeting of the National Association of Pharmacologists held at Columbus, Ohio, it was decided to hold the first annual meeting of the organization at Columbus, June 29th.

Owing to the tender age of the association and the fact that the various committees are still incomplete, only one day will be devoted to the transaction of business.

At the monthly meeting committees were elected for five States; a plan of organization was adopted and made a part of the constitution; the reports of the national and State legislative committees were received and commended; and the constitution was amended so that the association might further extend its work along scientific and organization lines.

Anti-Narcotic Activity at St. Louis.

If any reliance was to be placed in the statements that from time to time appeared in the daily press of St. Louis, Mo., that city was, not so long since, a very hotbed of drug habitués and illicit venders of narcotics. Similar testimony was brought out during the recent hearings on the Foster bill. But things are no longer as they were reputed.

The Missouri Board of Pharmacy with the energetic assistance of the municipal police have practically eradicated the illicit sellers; two "druggists" have been heavily fined; another has had his pharmacy license revoked. The pharmacists of the city are hopeful for the permanency of the results of the crusade.

Albert B. Baltzly celebrated his tenth anniversary as proprietor of the store at the northeast corner of Broadway and Ninety-sixth street, February 17th and 18th. Although within a few blocks of him there is a big link of a chain of stores, and three such links within a dozen blocks, to say nothing of innumerable small drug stores, Mr. Baltzly, by pushing his business along progressive lines, has made a marked success of it.

Newspaper reports have it that "Hegeman & Co." [Riker-Hegeman Company (?)] of this city, are negotiating for a location for a branch store at Bridgeport, Conn.

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Druggists and Anti-Narcotic Legislation.

Pharmacists throughout the country have long recognized the evils growing out of the indiscriminate sale and use of habit-forming narcotics, among which opium and its principal alkaloid, morphine, and cocaine are the most widely used. Recognizing this evil, and realizing that many in their ranks are partly (although not mainly) responsible for its growth, pharmacists through their organizations have done much to secure the passage of laws to curb it. They have drafted model anti-narcotic bills and have made representations to legislators which have resulted in the passage of such bills. Be it said to the eternal credit of the drug business—wholesale and retail—that while many men engaged in it have through weakness, cupidity, carelessness, or some other cause, yielded to the demands of their customers for larger supplies of habit-forming narcotics than should be sold, the organized associations of druggists have uniformly stood for the right in this matter. Instance after instance could be cited, but perhaps even better than pointing out individual cases is to say that as a result of pharmaceutical association work there are on the statute books of most of the States, laws so circumscribing the sale of these drugs and fixing such heavy penalties for violation, that the illegitimate traffic in them has been almost driven from the drug stores of these States, and is now largely confined to peddlers and denizens of the lower world. Furthermore, the American Pharmaceutical Association has repeatedly gone on record as favoring stringent anti-narcotic laws, and has not stopped there but has been active in its efforts to accomplish something tangible along this line. The same is true of the National Wholesale Druggists' Association. As to the National Association of Retail Druggists, perhaps no word of ours can so succinctly set forth its attitude toward this question as do a preamble and some resolutions adopted by it last year at Pittsburg. These follow:

Whereas pharmacists are unalterably opposed to the sale, distribution, and use of habit-forming drugs to an extent that injury to many unsuspecting persons may result; and

Whereas pharmacists have aided in the enacting and have earnestly supported laws tending to prevent drug habituation; and

Whereas existing laws do not prevent the public from obtaining habit-forming drugs in such condition and quantity as to cause them to become drug slaves; be it

Resolved, That this association favors legislation that will safeguard the public by preventing any person, even a licensed physician, from dispensing, distributing, or

selling habit-forming drugs, except under proper restrictions.

Any feasible bill intended to stop the illegitimate sale of habit-forming drugs is entitled to and will receive the support of organized pharmacists in the territory to be covered by the proposed law; and when organized pharmacists find it necessary to oppose the passage of any anti-narcotic measure it is because they do not regard it as properly adapted to the accomplishment of the end at which it is aimed.

Testing the Food and Drugs Act.

In a case pending in the federal court for this district, some mention of the details of which appears in our news columns this month, the constitutionality of the food and drugs act has been attacked, and it was thought at one time that the points raised by the attorneys making the assault would be carried to the supreme court for adjudication. It seems now, however, that the ruling of the circuit judge on the demurrer in which the points were presented, sustaining the law, are so conclusive as to render any further attempt along similar lines to overthrow the act a hopeless undertaking, and it is understood that no appeal will be taken from this ruling.

In the demurrer two contentions were made that are of general interest, one of which is particularly interesting to druggists. The first was that the food and drugs act is unconstitutional in that it is an ex post facto law. This contention was based upon the fact that the law says that the standard of a drug shall be determined by tests laid down in the Pharmacopœia "official at the time of investigation." It was argued that a drug might be up to the standard fixed by the Pharmacopœia official at the time of the sale of the drug, but below the standard of a revised Pharmacopœia which might have become official prior to the time of investigation. The court held that if the statute were to be construed to mean what the attorney argued it meant, it would clearly be unconstitutional, but the court took a broader view of its meaning and intent, saying that the crime of shipping adulterated drugs if committed at all is committed at the time of the shipping, and that by "investigation" is not meant simply the chemist's examination of the drug, but rather the general inquiry into the circumstances in which the drug was shipped, which inquiry must of necessity cover the time the shipment was made and be into conditions which existed at that time. The federal law does not and can not make

adulterating a misdemeanor; that is a matter for the State government to look after. What it does prohibit is the *shipping* in interstate commerce of adulterated drugs, and if a shipper of drugs is not guilty when the shipment takes place and by reason of the shipment, he is not guilty at all.

Having disposed of that point, this court took up the second one, which is of peculiar interest to pharmacists, as it concerns the status of the Pharmacopœia as a legal standard, that is to say, any Pharmacopœia which has come into existence since the passage of the food and drugs act, or which may come into existence in the future. It was argued by the defendants in the case under discussion that congress had exceeded its constitutional authority when it had delegated to outside bodies, especially as those bodies are no part of the government machinery, the responsibility of saying what should and what should not constitute a crime. As a matter of fact it does not seem to us that congress has undertaken to delegate any such responsibility; congress itself defined the crime, and only left it to some body more conversant with drugs and their use to say what the recognized standards for them under the law should be, and to lower, raise, abandon or add to these standards as the advances in pharmacy, botany, chemistry and medicine might render desirable. The court took this view of the facts, and as to the law applicable to them, cited a legal precedent which had been established in the case of the Union Bridge Company against the United States. In this case it was claimed that the bridge company was guilty of "unreasonable obstruction to free navigation" of the Monongahela and Alleghany Rivers, contrary to an act of congress. The court held that what might not have been obstruction to navigation in 1874 might be such an obstruction in 1902, and that this was a matter for determination by the secretary of war, with the assistance of his engineers. In deciding the bridge case the court had cited with approval another case, known as Locke's appeal, in which a principle of law had been laid down as follows:

The legislature cannot delegate its power to make a law, but it can make a law to delegate a power to determine some facts or state of things upon which the law makes or intends to make its own action depend. To deny this would be to stop the wheels of government. There are many things upon which wise and useful legislation must depend, which cannot be known to the law-making power, and must therefore be a subject of inquiry and determination outside of the halls of legislation.

"The Ohio case," reported and commented upon in the CIRCULAR for January, 1897, page 1, did not seem to impress the court as having disposed of an analogous point. In that case it was held by the supreme court of the State of Ohio that as the Pharmacopœia of 1880 was the one official when the drugs act under which the action was brought was passed, the trial court had erred in admitting as evidence a copy of the Pharmacopœia of 1890. Since then the Ohio legislature has changed this law by specifying therein that the seventh decennial revision of the Pharmacopœia was to be regarded as the legal stand-

ard, and subsequently it has changed the word "seventh" to "eighth," and presumably will in two or three years, strike out the word "eighth" and insert in lieu thereof the word "ninth." The legislature of Ohio did not provide for the acceptance by the courts of any future revision of the Pharmacopœia, but congress has made this very provision; and in doing this, the court in the case now pending says that it has acted within its rights.

While the point has not been raised in the case under discussion, it is believed in some quarters that when the seller of goods alleged to be adulterated is not present when samples of such goods are taken for examination, and has no means of knowing whether the sample examined is really a true sample of the goods sold by him, it is unjust and illegal to hold him to account for any shortcoming in the sample or in the broken package of the goods. It is pointed out that it would be an easy matter for some one either in or out of the employ of the government, actuated by malice, spite or other base motive, to adulterate the goods after they had left the control of the shipper, or to use a false sample in making tests. The constitution forbids that any man should be deprived of his property or liberty without due process of law, and it may be that in time the courts will be asked to say whether or not the system at present in vogue under the federal law of collecting samples and condemning shipments of drugs does not come within the meaning of that prohibition. No one charges that any spite or malice has been shown, or any fraud practiced by the government officials, but it is easy to see that an abuse might easily creep in just here unless the rights of citizens are properly safeguarded.

As our readers all know, or should know by this time, we are heartily in favor of the food and drugs act. We believe that it has accomplished more good for the public than has almost any other law passed within the memory of the present generation, and that the good it has done is but a suggestion of what it bids fair to do in time. For such a law to be wiped off the statute books would be a great calamity, and one which the public will never allow to befall if it can prevent it. If the law is weak, and, in one way, it admittedly is, in that it falls short of reaching many abuses, it should be strengthened. We look for congress to make it better and broader. We want to see it as good as such a law can be made, and we want to see it applied to more things. We despise dishonesty and wish that it were possible to legislate it off the face of the earth, but recognizing the futility of undertaking to do this, we are glad to see any law which will make dishonesty in any certain direction so unprofitable that it will be practiced but little if at all. In this position we are with the better element in the trade. All recognize the fact that it would be to the advantage of everyone concerned if drugs were true to label. The way to improve the law is to locate its weak spots through judicial procedure, and then have such spots replaced by lawyer-proof sections. The act is comparatively new and has not stood the test of vigorous assault made on it in the highest courts.

Maybe when this test is applied the act will come out stronger than ever, maybe it will fall. The present attack does not seem to have weakened it in the least.

For Less Expensive Association Meetings.

So much has been said and written about the advantages to druggists of attending association meetings, that it seems almost like carrying coal to Newcastle to lay before them anything more on the subject. The good which pharmaceutical associations do in securing needed laws and in retarding inimical legislation, the benefits which accrue to business men who get out and rub elbows and exchange ideas with their fellows, the new life which comes to those who leave their stores for a while and take a little trip in which business and pleasure are intimately combined, the duty which a man owes to his calling—all these and many other matters which should be considered by druggists in connection with their local, State and national associations have been dwelt upon so frequently and at such length that it seems almost a waste of effort to try to emphasize them here. And there is another point having a very direct bearing upon the size of the attendance at the State and national meetings, which, while it has been touched upon now and then, may perhaps be brought out again with profit to some of the associations, and approval from some of those who compose their membership. We refer to the cost of accommodations at the hotels selected as the meeting's headquarters.

While the style of "The Stroller," whose random shots our readers have seen from time to time, is rather quaint and inclined toward the humorous, that writer has hit more than one bull's eye as effectually as if he were as prosy as the staidest of editors. A dozen years ago, in writing on the subject now under discussion, that free-lance gave utterance to some words which are as true now as they were then. He said:

Being the kind of a man that has to look twice at a nickel before boarding a street car and then walking—it seems to me that the expense attached to going to some of our State pharmaceutical association meetings is prohibitory to the rank and file of the profession. When it comes to paying \$3.50, \$4, or \$5 a day at a hotel, or twice that if you take your wife, on top of railroad fare, the hiring of a "relief" for a week, paying for "entertainment," and the loss of trade that may result from the proprietor's absence, it is no wonder that the men who make their money by rolling 24 pills for 25 cents hesitate—and then stay at home. A few druggists are wealthy; quite a good number are well-to-do, but many of them, and just as good druggists as anybody, cannot take \$50 out of the safe without shaking the very financial basis of their business.

Messrs. Committeemen on time and place, and you Mr. Chairman of the committee on arrangements, give the poorer brother a chance occasionally by holding the meetings at an inexpensive place, transacting the business promptly, omitting entertainment assessments, which, although voluntary, cannot be avoided by a man who prides himself upon always holding up his end, and announcing in advance that such will be the program. My word for it, new faces will be seen at that meeting, and the advancement of the profession will not be in the least retarded.

In his presidential address before the American Pharmaceutical Association at Richmond last year,

Dr. H. H. Rusby emphasized the same point. He said:

Conditions of time and expense must ever be expected to prevent a large majority from being present.

In just so far as we can remove these adverse conditions we can increase our attendance, so that even the humble questions of transportation and hotel rates become well worthy of a place in the presidential address. I believe that on various occasions a more insistent course on the part of the committee of arrangements might have succeeded in securing better rates from the hotels that we have patronized. In other cases, accommodations equally good in their essential features might have been secured by the selection of less expensive headquarters. It is always possible for those who so desire to stay at a more expensive hotel than that selected for the headquarters, but it is not so easy or agreeable to leave the headquarters hotel for one that is less expensive.

It is especially desirable that there should be an increased attendance by the members of our families, and several possibilities for bringing this about suggest themselves. Perhaps the most important is that the headquarters hotel should be induced to make a really liberal concession to additional members of a family, occupying the same room. It does not admit of dispute that the additional expense of the occupation of a room by an additional person is quite trifling, and that a good hotel management should be ready to make concessions for securing an additional guest in this way, a concession which is of considerable importance to our members and to our meetings. It has, however, become a very common policy for hotel clerks to refuse such terms, unless insisted upon. It would be well for future committees of arrangements to make a special feature of securing such rates and to insist upon them as one of the conditions of the contract. Such an arrangement would certainly tend to increase the attendance of our families, especially of those living near the meeting place, with great consequent advantages to the social features of our meetings.

There is much in the meetings of the State and national pharmaceutical associations which make them well worth any druggist's while to attend, and anyone who makes it easier for a large number of druggists to be present at these meetings is a real benefactor of those druggists and of pharmacy.

PSYCHOLOGICAL HELP WANTED: Here is a druggist who is puzzled by a phenomenon he has many times observed in his routine work. He states the case somewhat in this way: On days when cash sales run above normal, when many accounts are paid, when the clerks are rushed with work, and the cash-register record mounts away up among the large figures, the cash and the record tally; but on days when there is nothin' doin'—or almost nothing—when there are few people on the street and most of them pass by the store without stopping, when the clerks have plenty of time to devote to all the details of their routine duties, the cash will not balance. As with the cash register so with the want book, and so with the day book—the busier the day the fewer the entries that should be made on these books are omitted. Our querist wants to know why this is thus, and not being able to arrive at a satisfactory answer has referred the matter to our psychological department. As this department is a little weak just now, its manager being on a vacation, we are passing the question up, or, rather, along. Many druggists are mind readers—they have to be—and among them there may be some who have advanced far enough in the occult science to be able to throw a little light on this rather esoteric problem.

NOMINATIONS FOR OFFICE IN THE AMERICAN PHARMACEUTICAL ASSOCIATION are not made under ideal conditions. While it is all right for the nominating committee to be large and representative and democratic, it is a fact that a committee so composed is apt to be clumsy and to act without due consideration of the reasons which should guide it in the important work it is called upon to perform. Moved by the enthusiasm of the moment this committee has been known to nominate for high office in the association an individual who was not a member or even a pharmacist, but had been active on the local entertainment committee. Fortunately, the nomination was recalled before it reached the general session, and so caused no embarrassment to the association, the committee, or the nominee. As five members of the nominating committee are appointed by the president—usually from among the “elder statesmen” of the association—it might be well for these members to be apprised in advance of their prospective appointment, in order that they might have time to consult and come into the committee meeting with some well defined ideas as to who’s who and why. If their conclusions were sound they would be adopted by the committee.

YOU ARE TAKING BREAD FROM OUR CHILDREN was the cry of certain druggists when a campaign was launched against the fake beauty-column advertisements of various preparations which while more or less useless, still helped to stimulate business. Later, as these preparations grew in number, thanks largely to the attitude of these druggists toward them, the druggist themselves cried out for relief, saying that they would be undone if they had to stock many more of the fakes. Which goes to show that a fight for the right sometimes quickly turns out to be better even for the time-servers and money-grubbers than an acquiescence in a wrong for the sake of what may seem to the short-sighted to be expediency.

Fighting Flies.

But for his unparalleled persistence the fly would have been so discouraged and saddened by the remarks that have been made to him, at him and about him that he long since would have resigned, assigned, quit, gone out of business, shut up shop. The most hardened grafter in politics could not stand the abuse which he receives if it were not for those who flatter him, do him homage, and—get a “divvy” on his “rake off” now and then. Even the peskiest pedler would quit if he did not make a sale now and then. But who ever offered any aid or solace to a fly? It has been decided that he is not even a scavenger, and that is the only excuse for existence he ever offered. Truly the hand of every man, woman and child is raised against him; he is never free from attack; the scientist who heaps long names upon him and longer ones upon the results of his work, and the small boy that divests him of his principal means of locomotion are alike his enemies. He is an outlaw, made so by the edict of boards of health and the common consent of housekeepers and soda fountain attendants, bald headed men and the fellow whose business it is to keep the windows clean. In the language of a *Farm Journal* rimester, “Good-by, house fly; health boards cry you must die. You carry germs upon your feet, and drop them in the things we eat; deposit microbes

on our plates, and scatter them on shiny pates. Hurtful atoms you dispose upon Wopsy Popsy’s nose. Good-by, house fly; there’re reasons why you must die.”

One of these reasons is that physicians, microscopists, bacteriologists, entomologists, and other learned men, accuse the fly of transmitting tuberculosis, leprosy, cholera, summer diarrhoea of children, plague, carbuncle, yaws, oxyuris, tænia solium, swine plague, and typhoid fever. Regarding this count of the indictment, Secretary Pritchard, of the Chicago board of health, has said:

Fly time is here and our homes are to be invaded by the most dangerous insect known to man.

“My gracious!” I hear the good housewife exclaim. “Is it as bad as that? I always did hate the pesky things, but I had no idea they were really dangerous.”

Yes, madam, they are so dangerous as carriers of disease that you should fight for their exclusion from your home as you would against wild beasts seeking your life.

Flies are the dirtiest and filthiest of all vermin. They are born in filth. The manure pile, the garbage can and the out-door vault produce 99 per cent. of all the house flies in existence. They carry millions of disease germs on their feet. Study their habits just a little bit and you will be convinced. The fact is, the fly is so unspeakably nasty that it is impossible to tell you all the nasty things he does. He thinks nothing of leaving his feast of the carcass of a horse or dog to sample all the good things you have on your dining room table. He will crawl all over the butter or obligingly tumble into the baby’s milk with his germ-laden feet; or, escaping this fate, he meets his end in your tea or coffee. Rest assured that if you permit flies to have the freedom of your home you will actually eat the filth which they deposit on whatever they touch.

Now, for protection from this dangerous little pest, see to it that all doors and windows are carefully screened. Also be very careful to keep flies away from all foodstuffs.

Keep the premises clean. Do not allow decaying material of any sort to accumulate. Keep garbage cans tightly covered. Garbage can be sprayed with kerosene, which will prevent flies from breeding.

Some of the wise ones have discovered that the fly, like the old toper, wants a drink the first thing when he gets up in the morning. Let him have his drink, by all means, but not out of the baby’s milk bottle. Fix up something especially for Mr. Fly, and be sure that it is “fixed” good and plenty so that he will not want a second drink of it. Quassia fly paper is the thing, and it is not poisonous to man. When he goes out for his morning stroll, let Mr. Fly find some inviting walk prepared for him—a nice sticky one that will suit him so well that he will use no other after having once tried it. Incidentally, this kind of a walkway holds the germs which the dirty fly brings to it.

Formulas galore for fly powders, poison fly paper, sticky fly paper and other means of combatting the fly nuisance may be found in the volumes of the CIRCULAR for the past few years, a particularly choice collection appearing in the issue for May, 1909, page 223. Druggists could benefit humanity and earn a profit, by pushing anti-fly goods, and now is the season to begin this campaign. When everyone has done his duty in the matter of educating the public about flies, and done all he can to diminish the number of these unmitigated nuisances, the little verse below, from the *Saturday Evening Post*, will not seem as humorous as it was doubtless meant to be:

Hush-a-by, Baby, be still as a mouse,
I’m sure as can be there’s a fly in the house;
I pray thee don’t stir, dear; abide here in peace,
And I will go quickly and call the police.

Real Bay Rum.

BY FREDERICK T. GORDON.

Recent comments on and formulas for bay rum in THE DRUGGISTS CIRCULAR have interested me considerably, as I have been more or less "shipmates" with bay rum this twenty years back. It is also interesting to one who is becoming a "back number" to read the same answers to queries which he as a youngster clipped out for future use and information. My personal experience with bay rum, as well as observation of its use and manufacture in its native land, and conversations I have had with those who know it long and intimately, leads me to offer a contribution on the subject.

Of course, as we all know, bay rum and its name are of West Indian origin. The article was manufactured and used in the West Indies by the affluent planters long before it was known in this country except by travelers. Perhaps its true origin is unknown, but I have been told by West Indian friends that the first bay rum was made by macerating the leaves of the bay tree (*myrcia*) in the native rum distilled from the molasses left as a residue in sugar-making, and that it was regarded by the natives as a stimulating and soothing (?) lotion very much as we of the North regard a distillate made from witch-hazel. Rum, in the years gone by, was a staple by-product of the sugar plantations, when it was made in crude stills from the fermentable molasses, or even from the refuse left after the cane juice had been boiled down to sugar and the brown product drained of its non-crystallizable residue.

When bay rum became better known as a toilet article and when more scientific methods of preparation were employed, it was made by distillation. Fresh leaves of the bay tree were bruised and put into a still and the still filled with crude rum. This was allowed to macerate over night, and then heat was applied and a liquid containing practically 50 per cent. of alcohol and the essential oil of the bay leaves came over and was collected. This product was the original bay rum, as we know it. It was, of course, a solution of the essential oil of bay in alcohol, but it had in addition odoriferous substances obtained from the raw rum used, and in my opinion the absence of these odoriferous substances from the official bay rum was the cause of the difference between the real article and the bay rum commonly sold.

The old-fashioned method of making this article has almost become obsolete; even in the island of Saint Thomas, which was once the headquarters of the bay-rum industry, little is now made by distillation. A large amount of bay oil is still made in various islands of the West Indian group, but most of it is exported for the making of bay rum in this country and Europe. I remember seeing one of the old-fashioned bay-rum stills in Saint Thomas in 1897, and was then told that it was much more profitable to distil bay oil and make bay rum from the oil by dissolving it in the cheap alcohol obtained from the distillates of the sugar cane plantations than it was to make bay rum by distillation. Then, the best bay rum could be purchased in almost any of the islands at a shilling a quart bottle, there being no local excise tax on the alcohol content. Even at that time most of the so-called "imported" bay rum was made by dissolving bay oil in spirit distilled from rum.

The bay tree, from which the leaves used for the

making of bay oil and bay rum are obtained, is common throughout the West Indian islands, and is also a native of our own Gulf States, but so large has the demand for bay oil and bay rum become that the oils obtained from allied species of trees are an almost universal adulterant of oil of bay. It is a common practice of the West Indian gatherers of bay leaves to include in their basket loads leaves of similar character and spicy odor, those gathered from various species of pimenta being the commonest adulterant. In appearance the freshly collected leaves of the other species are similar to the bay leaf, but the fresh, aromatic odor of the true bay leaf cannot be so imitated as to deceive one who knows this odor and can judge it.

Now as to what we call bay rum itself. Of course there are numbers of recipes for it, each producing a variety pleasant to some particular taste. The variations range from the 5-cent-shave-barber-shop kind to the real bay rum with its fresh fragrance and bouquet. As every druggist knows, bay rum can be made at almost any price the customer wants to pay, but few want to pay the price of real imported bay rum that has been distilled from fresh bay leaves in the old-fashioned way, so the real "nut of the kernel" of this contribution is to recommend a formula for making bay rum that was given to the writer by an actual manufacturer of this article in the West Indies. When one considers that the average retail price of imported bay rum is about a dollar a quart bottle, and that the *same* quality may be made here at a cost much less, it might be worth while to try this recipe.

To go back a bit: most people seem to think that bay rum should be yellow. The real bay rum is not. Real bay rum made by distilling crude rum with bay leaves has a pale straw color, sometimes a very pale greenish-straw color, as nearly as I can describe it; and when first distilled bay rum is practically white. The color given to the original article was obtained by macerating a few fresh bay leaves with the distillate, but to make the product look "stronger" some distillers added curcuma and thus gave their brand a deeper color. Psychologists have taught us that the deeper the shade a remedy possesses the "stronger" it seems to the man who judges medicine by its color. If one wants his bay rum yellow let him filter it through magnesium carbonate; if he wants it pale, he should filter through magnesium carbonate and neutralize the filtrate with a few drops of hydrochloric acid. The cost of the product can be made according to the amount of alcohol used, as the cost of the oils used is comparatively small as compared with the alcohol.

So here is the working formula, to which I come at last:

Oil of bay.....	5 c.c. (mils).
Oil of pimenta.....	1 c.c. (mil).
Oil of orange.....	1 c.c. (mil).
Alcohol	400 c.c. (mils).
Water	400 c.c. (mils).
West India (Santa Cruz) rum.	200 c.c. (mils).

Dissolve the oils in the alcohol, add the rum, then the water, and, after a few hours, filter. No coloring is needed.

If a "stronger" article is wanted, the amount of oil of bay may be increased to 6 c.c. (mils); and if the price of Santa Cruz rum is too high, one-half the amount directed may be replaced by diluted alcohol.

How Not to Buy a Drug Store.

BY A FRIEND OF THE MAN WHO DID NOT KNOW.

Once upon a time there appeared in a New York paper an advertisement in which was offered what was stated to be a fine opportunity for a hustling young man to buy a drug store for a nominal sum. The store was described as being in a town not a hundred miles from the metropolis. Those interested were notified in the advertisement to apply in person or by letter to a certain agent. An old school friend of mine, whose first name is George and last one might be Goodthing, but is not, looked up the agent with a view to buying the store, for he had received a fairly good education in pharmacy, and had been a drug clerk for some years. He had never undertaken to manage a drug store, but felt sure that he could give points to a lot of proprietors. George had saved some money while working for others, which fact made it easy for him and his friends to believe he had the makings of a good business man.

George had no trouble in locating the agent mentioned in the alluring advertisement of the "drug store offered for sale at a sacrifice because of the pressure of other interests on the part of the present owner." Just here let it be stated that the agent understood his business. It took him but a short while to convince George that the man and the occasion had met. He explained in detail what a lucky thing it was for a young fellow of George's education, training and standing to find such a rare opportunity to become sole owner of a well-established business for a moderate amount of ready cash. The agent did a little telephoning and it was soon arranged that George was to meet the owner and examine the store at a certain hour of the next day. George was on hand at the appointed time. It cost him \$12 for railway fare and sundry expenses to get there, but he had not supposed that he would find a "cinch" or a "snap" without going to some expense; hence he was not downhearted simply because he had had to use more or less ready cash in ascertaining a few things about his future business establishment. He found the owner of the drug store, a Mr. Brown, busy, with two clerks, waiting on patrons. In fact the store seemed to be quite well filled with well-to-do looking persons who were buying drugs, waiting for prescriptions to be filled, sitting at the ice-cream tables eating ice cream or candy, drinking soda, etc., or waiting as if for a car.

The proprietor had his head clerk produce some books. Brown claimed that he derived from fifty to seventy-five dollars clear profit from the store every week. George could not fathom Brown's system of bookkeeping, and so had to accept the statement as made, especially as the clerk confirmed the figure. Slips indicating the amount of drugs, cigars, ice-cream and other goods sold, were shown, all of which appeared to George to be quite encouraging, so much so that he wondered why Brown should care to dispose of such a good thing. He asked about the stock in the store and was invited to cast his eyes over numerous rows of articles. There were show-cases and cabinets that appeared to be well filled with salable articles. The boxes on the shelves were well arranged and seemed to be complete.

George and Brown did more or less checking of goods. George kept a list on a tablet, while Brown, assisted by a clerk, designated the articles. Brown

and the clerk were pleasant fellows, who smoothed over the rough places. All hands smoked and chatted as they counted articles and supplies. Occasionally a shortage revealed itself in a count, and all laughed, deeming it quite a joke. George had considerable confidence in Brown and his helpers. They did not go over the entire stock, as to do so would have taken two or three days. George told the men that he was satisfied after they had checked up a certain section of the store. He felt that there must be the full value there. The price for which the store with stock and good will was advertised was \$2,500. It seemed to George that there was more value than this in the packages and bottles. There were rows of high-priced extracts and other perfumery on the shelves, and a number of kegs, jugs, carboys and other containers of surplus stock in the basement.

George did not decide that day about buying the store. He wanted to look at some other places first. In three days he returned, and after a few preliminaries the necessary papers were drawn up and he paid over the cash and became for the first time in his life the proud owner of a store. He retained the two clerks. Brown celebrated the occasion by giving all hands a fine dinner at the hotel near by, and then departed.

The store opened for business under the new administration the next morning. Some customers came in and various preparations were called for, a few prescriptions left to be filled. Then the new proprietor discovered that the stock had been tampered with since he had inspected it. He had expected to be able to fill any prescription, but found that a good deal of valuable and useful material had been taken away. It seemed unjust to blame Brown, the genial friend and former owner, so George tried to convince himself that there was a mistake somewhere and that Brown would come back and make it all right. But before many days had passed he was obliged to admit in the parlance of the street that he had been "stung." An investigation revealed to him the fact that on the day he first visited the store the place had been "fixed" for his arrival; that Brown had invited a dozen or more of his acquaintances to come to the store for a treat on ice-cream and soda water, for the purpose of making the establishment appear to be in a flourishing condition. He also found that many of the alleged original packages called off to him by Brown and the clerk when they were "checking up" had been opened and their contents removed; that the "large stock" of expensive perfumes had been so arranged that the full bottles were all in front, while many empty or nearly empty ones were half hidden, and that the supposed surplus stock in the basement was a delusion and a snare. Even the bill for the dinner at the hotel was sent to George, but this he could refuse to pay, and did. He never knew what became of it, but heard later that the hotel owed the store for supplies, and supposed that the two accounts cancelled each other.

One revelation came after another until George finally and reluctantly admitted to himself that he had been neatly "goldbricked." What could be done then? He had paid for the store; Brown did not live in the town, and no one seemed to know where he was. George charged the loss up to "experience." Some of his further experiences are too harrowing to be related, right on top of the foregoing, but he had some that are worth telling.

Good Laboratory Practice.

By WILLIAM MITTELBACH.

The laboratory or druggist's workshop affords excellent opportunities for self education in many ways. No matter how little work is done there in the way of preparing galenicals, yet every single preparation can be used as an object lesson to broaden our views and strengthen our knowledge about the various drugs handled, and their method of combination, Latin and common names, and the cost of drugs can be more quickly and thoroughly learned in the laboratory than elsewhere.

The following practice has been in vogue in my store for several years, and I find it quite a help to those in charge: For instance, when making elixir of iron, quinine and strychnine phosphates, the operator writes out in full the formula as stated in the Pharmacopœia in a book I call the laboratory record, thus:

R Ferri phosphatis solubilis.	Gm.	17.500	cost	.029
Quininæ	Gm.	8.750	"	.158
Strychninæ	Gm.	0.275	"	.014
Acidi phosphorici	Cc.	2.000	"	.002
Ammonii carbonatis	Gm.	9.000	"	.002
Alcoholis	Cc.	60.000	"	.044
Acidi aceticæ	Gm.	28.650	"	.010
Aquæ ammoniæ	q.s.		"	.001
Aquæ destillatæ	q.s.		"	.000
Elixiris aromatici	q.s.		"	.245

Total cost for 1000 Cc. 505
or 1½ cents a fluid ounce.

As is seen, the formula is written in the form of a prescription, and unabbreviated. This is good exercise in Latin writing, and gives the student a fine opportunity to post up on the subject. The cost of each item follows the article. This must be computed accurately in order to arrive at the true cost of the finished preparation. In this case our finished preparation costs us 50½ cents for the 1000 c.c. (mils) or about 24 cents a pint. One of the most popular brands of this elixir costs the retailer \$8 a dozen pints. It is very evident therefore that it pays the druggist to make this galenical. Just so with many other preparations; and besides a saving in cost, we get most valuable experience.

From this record a more condensed tabulation is made on a 4 by 7 bristol board card. These cards are arranged alphabetically in a proper receptacle. The record on this card is as follows.

<i>Elixir Ferri, Quininæ et Strychninæ Phosphatum.</i>				
Date.	Quantity.	Cost.	Made by	Remarks.
11/2/11.	1000 c.c.	.505.	Smith.	Sell for 10c. oz.

Each card will hold about twelve entries, which in the average store means a concise record, on one card, for three or four years.

The value of such practice and records must be apparent to every student of pharmacy. It develops not only scientific and commercial knowledge of the business, but also gives the operator excellent training in neatness, accuracy and system.

Every time a druggist does a little counter prescribing, says the *Pacific Drug Review*, he is injuring his own business and making dispensers out of physicians, for the "patient" will eventually go to the doctor and tell him about the druggist's treatment.

Simple, Accurate Methods of Milk Analysis.

By JOSEPH L. MAYER, PHAR. D.

In view of the ease with which it is possible to obtain speedy and accurate results in the analysis of milk, it is surprising to find so few pharmacists who make such examinations.

The statement that the dispensing druggist has not the apparatus, sufficiently accurate balance or time to undertake the work, is not well founded in view of the following experiments which I made:

To ascertain whether a delicate prescription scale would yield accurate results, a determination of the solids was made, employing a beam dispensing scale and the weights accompanying it. This was one of the scales in daily use in our prescription department.

At the same time a duplicate was run, using the regular analytical balance and weights, with results as follows:

Druggists' scale and weights showed 11.72 per cent. total solids.

Analytical balance and weights showed 11.71 per cent. total solids.

These results are sufficient evidence that in the absence of an analytical balance, the pharmacists' scale may be employed without fear of erroneous results.

Another complaint of the druggist one frequently hears is that he has not a platinum dish to employ for the total solids estimation. To determine whether this could be overcome without sacrificing accuracy, two determinations were made, one by using a platinum dish and the other by employing an ordinary tin cover from a mailing case which had approximately the dimensions of 2¼ inches by ¼ inch. The results obtained were those reported above, the mailing case cover being employed in connection with the druggists' scale and weights, and the platinum dish, in the other process. Thus it is seen that the use of these covers, tin ointment box covers or even lead-tin foil capsules which are listed by apparatus dealers especially for milk analysis, give very accurate results.

The determination of fat is very quickly and accurately made by means of some form of centrifuge. These machines with a set of Babcock milk bottles, pipette, acid measure, etc., can be purchased as low as eight dollars, depending on the number of pockets, this one being made for four.

The specific gravity can readily be determined by means of an accurate urinometer, or else by a lactometer of the New York board of health pattern. The latter form of apparatus has the advantage that it indicates at once whether or not the milk meets the legal standard, as a reading of 100 on the scale indicates that the milk has the legal gravity of 1029. Should the lactometer read 110, it would indicate that it not only met the standard of gravity, but was above it. If, on the other hand, it read 90, it would indicate that the sample fell short of the legal requirement with regard to the specific gravity. These lactometers' chief value is in milk inspection.

The actual determinations usually required in connection with milk analysis are as follows:

SPECIFIC GRAVITY.

The specific gravity is taken with the urinometer above referred to, care being taken to have the milk at 60° F. Should the milk have some other tempera-

* Read at the March, 1911, meeting of the Kings County (N. Y.) Pharmaceutical Society, and contributed by the author.

ture, a reference to a standard table found in the books will aid in making the correction, although a simpler way is to bring the milk to the proper temperature.

FAT DETERMINATION.

Fat is determined by means of the Babcock apparatus above referred to, full directions concerning the use of which accompany the machine. This small apparatus is hand geared and requires nothing but the apparatus and commercial sulphuric acid. The entire time required to measure the milk, centrifuge, and complete the analysis is not more than fifteen minutes. If but a few determinations are to be made it is well to run duplicates.

TOTAL SOLIDS.

Total solids are determined by accurately weighing two platinum dishes, mailing case covers, or tin ointment box covers, and after noting their weight, accurately weighing into them 5 grammes of the sample. They are then placed on a water bath (with a piece of filter paper over the hole in the bath to prevent dirt from the water being deposited on the bottom of the dish), after three hours taken off, the outside of the dish wiped dry with a cloth, and weighed. Since 5 grammes of milk were taken the results obtained multiplied by twenty will give the percentage of total solids.

WATER.

Deducting the percentage of total solids from one hundred will give the percentage of water.

FORMALDEHYDE.

Formaldehyde is readily detected by means of Hehner's test—sulphuric acid and ferric chloride. As pointed out by Lyons (Proceedings of the American Pharmaceutical Association for 1905, page 326), the ratio of the reagents makes a great difference in the results. Acting upon his suggestion I find that 1 volume of tincture of ferric chloride to 25 volumes of sulphuric acid, always yields satisfactory results; this is employed by placing about 4 c.c. (mils) of the reagent in a test tube and carefully floating the milk on top. A violet zone indicates formaldehyde. LaWall (Proceedings of the American Pharmaceutical Association for 1905, page 327) makes the very valuable statement that this test gives the most distinct reactions with the weakest formaldehyde solutions. My own work on the subject has confirmed this. If sufficient formaldehyde is present to be recognized by the odor, it is necessary to dilute the sample to obtain results.

BORAX.

Borax is detected by the method of La Wall and Bradshaw, which is as follows: Pour the milk into a small watch glass, carefully add 10 per cent. hydrochloric acid until the reaction is acid to blue litmus paper, then add about 5 drops of tincture of turmeric (prepared as directed under "Indicators" in the Pharmacopœia) and evaporate to dryness on a water bath. If boric acid is present, the residual film produced will have a red color directly proportionate to its amount. (Proceedings American Pharmaceutical Association for 1907, page 839).

CARBONATES AND BICARBONATES.

Carbonates and bicarbonates are readily detected by the effervescence produced on adding an acid to the ash. If the ash has not been determined, a satisfactory method is that of Schmidt: Ten c.c. (mils) of milk are mixed with an equal volume of alcohol

and a few drops of 1 per cent. solution of rosolic acid added. A rose-red color indicates carbonates or bicarbonates. Pure milk yields a brownish-yellow color. (Allen's Organic Analysis, second edition, volume IV, page 183.)

It is a good plan to run a blank with pure milk.

It is hardly necessary to make mention of the fact that it is essential to mix the sample thoroughly before making the various determinations. In addition to the foregoing determinations, milk analyses sometimes include the estimation of ash, proteids, and milk sugar, and qualitative tests for caramel, anilin orange, and annatto. In addition, a bacteriological examination is frequently made.

The determinations above referred to are those which are required to determine whether the sample meets the legal requirements. Section 53 of the sanitary code of the board of health of the department of health of the city of New York defines the term "adulterated milk" as follows:

First, milk containing more than 88.5 per cent. of water or other fluid.

Second, milk containing less than 11.5 per cent. of milk solids.

Third, milk containing less than 3 per cent. of fats.

The United States standard defines milk as follows: "Contains not less than 12 per cent. total solids, not less than 8.5 per cent. solids not fat, and not less than 3.25 per cent. of milk fat." (United States department of agriculture, circular thirteen, page 7.)

In addition, the pharmacist who has occasion to use any quantity of milk at his fountain has a simple, accurate index to the quality of milk being supplied him and in this way may guard against what sometimes assumes the proportion of a large-sized business leak. Take, for example, a heavy cream, used by pharmacists who make their own ice cream, which is often bought on a basis of 40 per cent. of fat at a fixed price for each percentage of fat. If the sample should run 24 per cent. instead of 40 per cent. it is easy to see the financial loss.

A talk on milk analysis, however short, would be incomplete did it neglect to include mention of the various tables in use for doing milk analysis by calculation. The results which are remarkably close are obtained as follows:

The specific gravity is accurately determined as above described and the fat estimated by means of the centrifuge, then employing Richmond's formula (Allen's Organic Analysis, second edition, volume IV, page 165)—

$$T = 1.2 F \text{ plus } 0.14 \text{ plus } 0.25G.$$

(T. = total solids; F. = fat; and G. = gravity, that is, the excess above 1, with the decimal point moved three places to the right.)

For example, a sample of milk at 60° F. had a specific gravity of 1.0304, and contained 4.4 per cent. of fat; then, by applying the rule, we ascertain the percentage of total solids in this sample as follows:*

$$\begin{array}{rcl} T = 1.2 F & (1.2 \times 4.4) = & 5.28 \\ \text{plus} & & .14 \\ \text{plus } 0.25G. & (0.25 \times 30.4) = & 7.60 \end{array}$$

Percentage of total solids 13.02

The figures for total solids obtained on this milk

*The equation must be read as a whole, not line by line.

using the gravimetric method were 12.86 per cent. If on the other hand the percentage of fat is desired and the figures for specific gravity and total solids are at hand, the following formula is employed:

$$F = (T - [0.14 + 0.25G]) \div 1.2.$$

For example, employing the above figures, we ascertain the percentage of fat as follows:*

Total fat = T =	13.02
minus (0.14 + 0.25G) = 0.14	
plus 0.25 × 30.4 = 7.60	7.74
	5.28
divided by 1.2 (5.28 ÷ 1.2)	
= percentage of fat =	4.40

There are various tables in use whereby it is simply necessary to make the determinations and a reference gives the desired figures. Or a more convenient plan is to use the milk-scale devised by Richmond, which is constructed on the principle of the slide rule.

Recently Olsen (*Journal of Industrial and Engineering Chemistry*, volume 1, number 4, page 253) has published a new method for the calculation of the proteins in milk and incidentally the calculation of all the constituents based upon the determination of nothing but the fat and specific gravity. His rule is—

$$P (\text{proteins}) = T - (T \div 1.34).$$

For example, a sample contains 11.25 per cent. of total solids. To ascertain the proteins, proceed thus*—

P = T =	11.25
minus 11.25 ÷ 1.34 =	8.39
	2.86

Percentage of proteins.

The actual analysis showed 2.84 per cent.

Then, if in a sample of milk we determined the specific gravity and the fat, it would be but necessary to calculate the total solids and proteins, and taking the ash of milk as 0.75 per cent., calculate the milk sugar by difference, and in this manner calculate the complete analysis merely from the figures on fat and specific gravity. For example, a milk analysis calculated yielded the following results:

Fat	4.40 per cent.
Proteins	3.23 per cent.
Ash	.75 per cent.
	8.38 per cent.
Total solids	12.88 per cent.
Less the	
above	8.38 per cent.
Shows	4.50 per cent. of milk sugar.

Then we have—

Fat	4.40 per cent.
Proteins	3.23 per cent.
Milk sugar	4.50 per cent.
Ash	.75 per cent.

Total solids	12.88 per cent.
Water (by difference)	87.12 per cent.

100.00 per cent.

As a result of the simplicity of the apparatus and methods of analysis, accuracy of results, demand for the work and financial gain associated with it, the subject of milk analysis by the pharmacist is one which has everything to commend it.

*The equation must be read all together, not line by line.

Physicians' Financial Interest in Official Preparations.*

By B. S. GUARDIAN.

Mr. Chairman and Gentlemen of the ———: I come to you as a representative of the ——— to ask you what you are going to do to put a stop to the further spreading out of the 10-cent medical societies, to promise you our aid in fighting them, and to suggest ways of doing it successfully.

I need not dwell upon the harm done by these 10-cent societies; you feel it all, all except the very few at the top of the medical ladder, and you feel the harm done more than we pharmacists do, as with us the prescription trade is but a part of our business, while with you, gentlemen, it is almost all your stock in trade—the more reason for you to try to put a stop to this plague.

Now, these 10-cent societies recruit their victims among the very poor mostly (barring exceptions that can be practically disregarded); the poor flock to these societies because they cannot afford to pay the regular fee of \$1 or \$2, and then as much more to have the prescription filled. Well, it seems to us pharmacists that this can be partly remedied by you, gentlemen, prescribing drugs that are not expensive though just as efficient as the dearer kind.

For instance, we do not see the reason for the physician to prescribe for poor people a proprietary brand of hexamethylenamine at \$1 an ounce instead of the official article at \$1 a pound; or a much-advertised antiseptic powder sold at an exorbitant price, when the powder made according to the National Formulary will answer every purpose and has this advantage: When its formula is changed you are notified. Nor do we see why in prescribing solution of hydrogen dioxide you specify a brand and thereby compel your patients to pay for the solution and for the advertising it has received in the papers; or why make them pay a fancy price for an alkaline antiseptic solution with a fancy name, when a more trustworthy preparation at a lower price is just as accessible.

By prescribing these expensive varieties of drugs and preparations official in the United States Pharmacopoeia or the National Formulary you raise not only the price of the particular prescription you are writing but raise prices all around, because you have us invest a considerable part of our working capital in varieties of drugs that are but seldom used.

And then, gentlemen, almost each and every physician has his favorite brands; it is not only hexamethylenetetramine of the U. S. P. variety we have to keep in stock, but also many duplicates of it under fancy names; and the same remarks apply to other chemicals on our shelves.

And what about this continuous specification of different brands of the same official preparation? One physician favors Jones', another one Brown's, a third Smith's, a fourth Robinson's, and so on ad infinitum. Gentlemen, you very often compel us to keep in stock several brands of the same elixir or syrup, and who

*This paper was prepared by its author to be read by him as a representative of a Brooklyn pharmaceutical body before a neighboring medical society as an introduction to a general debate on the subject treated, but for reasons of a purely local character the author was prevented from delivering his message, and so has contributed it to the CIRCULAR.—Editor THE DRUGGISTS CIRCULAR.

is going to pay for the thus increased cost of running our pharmacies, who but the patients.

Now, gentlemen, we pharmacists have studied pharmacognosy for years, every one of us; we handle and dispense drugs continuously and, with all respect to your knowledge in pharmacodynamics, we think that we are better qualified to judge the quality of the drugs than the average physician. And we are not sure whether it is right to discriminate between one reputable manufacturer and another of equal standing, any more than it would be to discriminate between one reputable pharmacist and another of equal merits, or any more than it would be for the pharmacist to discriminate between one physician and another.

Gentlemen, such excellent drugs as aconite, belladonna, ipecac, nux vomica and opium have all been standardized alkaloidally by the Pharmacopœia makers, and no matter what brand you are prescribing you are getting but the U. S. P. kind. The bromides, iodides, and salicylates, the salts of bismuth, mercury, iron, and quinine are all U. S. P. and can be relied upon.

Before closing my address I will take the liberty of reminding you, gentlemen, that the United States Pharmacopœia and the National Formulary are providing you with a grand list of very effective though inexpensive preparations to meet almost any demand. I will mention but a few for the sake of illustration: Compound tincture of gentian, elixir of iron, quinine and strychnine, compound syrup of hypophosphites, Lassar's zinc-salicyl paste, gall and opium ointment and last but not the least, as a vehicle and a diluent, aromatic elixir, for which we do not charge \$1 a bottle.

Gentlemen, members of the ———, when you take up our suggestion that you prescribe effective though inexpensive drugs and preparations, then and only then every prescription of yours will be a nail driven into the coffin wherein we will lay to rest the corpse of the 10-cent medical business.

To Convert Thermometer Readings.

A correspondent of the *Lancet* (London) offers a new alternative method of converting degrees Centigrade into degrees Fahrenheit, which may be found easier to perform mentally than the usual method, because the factors can be more easily retained in the memory. This method consists of multiplying the centigrade figures by 2, deducting one-tenth of the product, and adding 32. Example (a), $30^{\circ}\text{C.} = 86^{\circ}\text{F.}$ Method: $30 \times 2 = 60$. $60 - 6 = 54$. $54 + 32 = 86$. Example (b), $37^{\circ}\text{C.} = 98.6^{\circ}\text{F.}$ Method: $37 \times 2 = 74$. $74 - 7.4 = 66.6$. $66.6 + 32 = 98.6$. Example (c), $40^{\circ}\text{C.} = 104^{\circ}\text{F.}$ Method: $40 \times 2 = 80$. $80 - 8 = 72$. $72 + 32 = 104$.

Palatable Draught of Epsom Salt.

Haldeman (*Physicians' Drug News*) offers the following formula as representing a palatable form of administering magnesium sulphate:

Magnesium sulphate..... 1 ounce.
Solution of saccharin..... 1 dram.
Oil of peppermint..... 2 drops.
Oil of anise..... 2 drops.
Water..... enough to make 2 ounces.

Dissolve the sulphate in the water and add the other ingredients; filter.

Some Suggestions Anent N. F. Preparations.

At the February meeting of the Washington branch of the American Pharmaceutical Association the following formulas and processes were submitted as improvements on the respective recipes found in the National Formulary:

Alkaline Antiseptic Solution.

I.	
Potassium bicarbonate.....	32.0 grammes.
Sodium benzoate.....	8.0 grammes.
Sodium borate.....	32.0 grammes.
Thymol	0.2 gramme.
Eucalyptol	0.2 gramme.
Oil of peppermint.....	0.2 gramme.
Oil of birch.....	0.4 gramme.
Cudbear	2.0 grammes.
Alcohol	60.0 c.c. (mils).
Glycerin	250.0 c.c. (mils).
Purified talc.....	10.0 grammes.
Water.....	enough to make 1000.0 c.c. (mils).

Dissolve the salts in 600 c.c. (mils) of water, and the thymol, eucalyptol and oils in the alcohol. Mix the alcoholic solution with the glycerin; add the solution of the salts and enough water to make 1000 c.c. (mils). Add the cudbear and the purified talc; shake occasionally during three days, and then filter, returning the first portions until the filtrate passes brilliantly clear.

II.	
Potassium bicarbonate.....	32.0 grammes.
Sodium benzoate.....	8.0 grammes.
Sodium borate.....	32.0 grammes.
Thymol	0.2 gramme.
Eucalyptol	0.2 gramme.
Oil of peppermint.....	0.2 gramme.
Oil of birch.....	0.4 gramme.
Alcohol	60.0 c.c. (mils).
Glycerin	125.0 c.c. (mils).
Cudbear	2.0 grammes.
Purified talc.....	15.0 grammes.
Tincture of cardamom.....	10.0 c.c. (mils).
Water.....	enough to make 1000.0 c.c. (mils).

Aromatic Syrup of Eridictyon.

Fluidextract of eridictyon.....	32.0 c.c. (mils).
Solution of potassium hydroxide..	25.0 c.c. (mils).
Compound tincture of cardamom..	65.0 c.c. (mils).
Oil of sassafras.....	0.5 c.c. (mils).
Oil of lemon.....	0.5 c.c. (mils).
Oil of cloves.....	1.0 c.c. (mils).
Alcohol	32.0 c.c. (mils).
[Sugar?]	
Water.....	enough to make 1000.0 c.c. (mils).

Dissolve the oils in the alcohol and add the fluidextract and the tincture. Then add the solution of potassium hydroxide and 325 c.c. (mils) of water, shake the mixture thoroughly and filter. If the filtrate is not perfectly clear add 5 grammes of magnesium carbonate; shake thoroughly and again filter until clear. Finally pour enough water through the filter to obtain 500 c.c. (mils) of filtrate. Pour this upon the sugar contained in a bottle, and effect solution by placing the bottle in hot water and agitating it frequently. Lastly cool the product, and add enough water, passed through the filter previously used, to make 1000 c.c. (mils).

Essence of Pepsin.

I.	
Rennin	16.50 grammes.
Pepsin	22.50 grammes.
Lactic acid.....	2.00 c.c. (mils).
Tincture of sweet orange peel....	15.00 c.c. (mils).
Oil of nutmeg.....	0.05 c.c. (mil).
Vanillin	0.05 gramme.
Glycerin	150.00 c.c. (mils).
Alcohol	200.00 c.c. (mils).
Purified talc.....	15.00 grammes.
Distilled water.....	enough to make 1000.00 c.c. (mils).

Dissolve the pepsin and rennin in 500 c.c. (mils) of distilled water to which the lactic acid has been added, and then add the glycerin and the alcohol to which has been added the tincture of sweet orange peel, the oil of nutmeg and the vanillin. Shake after each addition, and finally add sufficient distilled water to make 1000 c.c. (mils) of product. Add the purified talc; mix thoroughly and filter.

II.

Pepsin	22.00 grammes.
Rennin	4.00 grammes.
Oil of orange.....	1.00 c.c. (mil).
Hydrochloric acid.....	1.00 c.c. (mil).
Glycerin	200.00 c.c. (mils).
Alcohol	200.00 c.c. (mils).
Purified talc.....	15.00 grammes.
Distilled water.....	enough to make 1000.00 c.c. (mils).

Compound Elixir of Pepsin.

Pepsin (soluble scale or granular) ..	15 grammes.
Lactic acid.....	1 c.c. (mil).
Hydrochloric acid.....	2 c.c. (mils).
Glycerin	250 c.c. (mils).
Alcohol	200 c.c. (mils).
Oil of orange.....	2 c.c. (mils).
Cudbear	1 gramme.
Distilled water.....	enough to make 1000 c.c. (mils).

Mix the acids with the glycerin and 500 c.c. (mils) of distilled water; add the pepsin, and macerate, with occasional agitation, until solution is effected. Then add gradually the alcohol in which the oil of orange has been dissolved, agitating after each addition. Now add the cudbear and sufficient distilled water to make the preparation measure 1000 c.c. (mils); macerate for six hours with occasional shaking, and filter.

Red Elixir of Pepsin.

Pepsin	15.00 grammes.
Hydrochloric acid.....	1.00 c.c. (mil).
Glycerin	200.00 c.c. (mils).
Alcohol	200.00 c.c. (mils).
Oil of orange.....	0.50 c.c. (mil).
Oil of lemon.....	0.50 c.c. (mil).
Sugar	150.00 grammes.
Cudbear	1.00 gramme.
Purified talc.....	15.00 grammes.
Distilled water.....	enough to make 1000.00 c.c. (mils).

Solution of Aluminum Acetate.

Aluminum sulphate.....	300 grammes.
Acetic acid.....	300 grammes.
Calcium carbonate.....	130 grammes.
Water	1000 c.c. (mils).

Dissolve the aluminum sulphate in 800 c.c. (mils) of cold water, and filter; gradually add the calcium carbonate previously mixed with 200 c.c. (mils) of water; then add the acetic acid in divided portions. Allow the resulting mixture to stand for twenty-four hours, at ordinary temperature, with occasional stirring. Finally decant the supernatant clear solution.

Stokes' Liniment.

Oil of turpentine.....	200 c.c. (mils).
Oil of lemon.....	8 c.c. (mils).
Acetic acid.....	40 c.c. (mils).
Rose water.....	170 c.c. (mils).
Fresh eggs.....	enough

Triturate the white and yolk of one egg and the yolk of another with the oil of turpentine and the oil of lemon in a mortar until they are thoroughly mixed. Then incorporate the acetic acid and the rose water. Shake the mixture, whenever any of it is to be dispensed.

Commenting on two formulas for elixir of terpin hydrate appearing in the CIRCULAR for last month, page 136, P. Henry Utech, Meadville, Pa., writes:

Permit me to offer a friendly criticism of both formulas.

The first formula—the one suggested by Prof. E. Fullerton Cook—is quite objectionable therapeutically on account of its high alcoholic content—considerably more than double that of the present N. F. product. This elixir is given largely to children, and if anything like an average expectorant dose of Prof. Cook's product were administered, excessive stimulation would result. The second formula—that of Mr. F. W. A. Hain—is, in my opinion, the better of the two, but inasmuch as his vehicle is glycerin, the preparation made according to this formula could not properly come under the head of elixirs—rather is it a glycerole of terpin hydrate.

With the idea of overcoming some of the objectionable features of the N. F. product, some years ago I began a series of experiments which resulted in the formulation of the following recipe, which first appeared in the Proceedings of the Pennsylvania Pharmaceutical Association for 1908:

Elixir of Terpin Hydrate.

Terpin hydrate (in powder).....	256 grains.
Acetic acid.....	80 minims.
Tincture of sweet orange peel.....	2 drams.
Alcohol	8 ounces.
Glycerin	4 ounces.
Aromatic elixir.....	enough to make 16 ounces.

Dissolve the terpin hydrate in the alcohol, to which the acetic acid has been previously added, by the aid of a gentle heat. Then add the tincture, and lastly sufficient elixir to make 16 ounces.

The addition of acetic acid increases the solubility of the terpin hydrate and enhances the therapy of the preparation.

The advantages of this preparation are: First, it exhibits an amount of medicament with a minimum of alcohol. Second. Its permanence; it will not throw down a precipitate even when exposed to a freezing temperature; specimens have stood on my shop shelves for over a year in perfect condition. Third. Its superior miscibility; it can be administered with resinous tinctures, etc., and remain permanent. Fourth. Its efficaciousness, on account of increased strength and the addition of acetic acid.

Spring Tonics for Live Stock.

In Farmer's Bulletin 430 of the United States department of agriculture, the following formula is given for a condimental stock food, with the statement that it has the recommendation of the Vermont and Maine experiment stations:

Ground gentian.....	1 pound.
Ground ginger.....	¼ pound.
Powdered saltpeter.....	¼ pound.
Powdered iron sulphate.....	¼ pound.

One tablespoonful to be given in the feed once daily for ten days and for ten more days after an interval of three days.

The Iowa station suggests the following formula for a cattle condiment, which, the director naively remarks, will not take the place of common sense and intelligence in the feeding of domestic animals:

Fenugreek	8 pounds.
Ginger	8 pounds.
Gentian	8 pounds.
Sulphur	8 pounds.
Salt peter	8 pounds.
Rosin	8 pounds.
Cayenne pepper.....	4 pounds.
Flaxseed meal.....	44 pounds.
Wood charcoal.....	20 pounds.
Common salt.....	20 pounds.
Wheat bran.....	100 pounds.

Mrs. Price's Canning Compound.

The *Journal of the American Medical Association* reports an examination, in the association laboratory, of Mrs. Price's canning compound, sold on the claim that it will "prevent canned fruits and vegetables from souring and spoiling." The qualitative tests made indicated the presence of a borate, a chloride, a benzoate, and sodium. Further experiments and the quantitative estimations indicated that the constituents found existed as boric acid, sodium chloride and benzoic acid (possibly in part as benzoate), the boric acid amounting to nearly 95 per cent. of the mixture. The *Journal* remarks: "The housewife who uses this mixture does so, of course, not knowing that the chemical she is putting into her foods has been declared injurious as a food preservative by the federal government. Neither does she realize that she is paying for what is essentially boric acid, worth 15 cents a pound, at the rate of \$1.60 a pound."

Physiological Laboratory Notes.

WARNING AGAINST A CERTAIN TEST FOR SPIROCHÆTA PALLIDA.

Borach (*Journ. Am. Med. Asso.*) finds misleading the india ink method of testing for spirochæta pallida. This method first recommended, he says, by Burri, consists in mixing the serum with diluted liquid india ink on a slide and allowing it to dry in the air. In a case in which there was a possibility of syphilis the author had taken a drop of serum from a vesicle and mixed it with india ink for examination. To his surprise he saw at first sight what he supposed were spirochetes. Closer scrutiny of these objects, however, made it dubious as to their actually being spirochetes. It then occurred to him that whatever they might be, before supposing them to have come from the serum of the vesicle, it would be well to examine the pure ink. This he did and found that the same wavy fibers were present. He exhibited the pure ink specimens to a number of laboratory workers, and all agreed that the non-critical and inexperienced observer might easily mistake these for spirochetes. A number of india inks of the market were examined by the author in collaboration with Holliday and all were found to give more or less deceptive appearances. The author adds that "since the accurate determination of the presence of spirochæta pallida is at present already often complicated by the presence of spirochæta refringens, to use the india inks would be to add one more source of error. The spirochete-like objects seen with these inks seem capable of assuming various shapes and sizes, and while most of them, by the experienced microscopists, would not receive very serious consideration, some of the specimens that I have come across at a magnification of 1,300 diameters and higher, could delude even the expert."

A SIMPLE TEST FOR BILIRUBIN.

Bilirubin can be identified in a dilution of 1:100,000 according to Guenther (*Med. Klin.*) by the following method: About 5 c.c. (mils) of glacial acetic acid are boiled with a small amount of magnesium peroxide (about 0.005 gramme) and mixed with a few drops of dark icteric urine previously made strongly alkaline with caustic potash. (Of light-colored alkaline urine 5 to 10 c.c. [mils] should be used for the reaction.) In the presence of bilirubin an emerald-green color will be produced at once or after heating for a short time. By the addition of hydrochloric acid the green color changes to blue. The coloring matter is soluble in chloroform, thus differing from biliverdin and biliprasin, which are insoluble in this liquid.

TEST FOR BILE IN THE GASTRIC CONTENTS.

Woldert (*Journ. Am. Med. Asso.*) in making chemical analyses of the gastric juice siphoned off an hour after a test meal, frequently observed that the specimen before and after filtration would have a decided greenish tint, suggesting either bile or gastrostia fungosa (mold in the stomach) and on testing some of this filtered gastric juice for bile by the nitrous acid method no reaction would be given. Finally the filter paper in such a case was laid aside and allowed to dry. Four days later the paper still had a greenish appearance, especially around the edges. On moistening these greenish areas with nitrous acid the author observed the play of colors characteristic of the bile reaction, the green color first changing to a faint reddish

tint, which lasted a few seconds, then being followed by blue, and after two to five minutes changing to a brownish tint. Thinking that the same reaction could be perhaps obtained by using the filtered gastric contents, he passed some of it back through another piece of white filter-paper, and, when the paper was thoroughly dry, applied the nitrous acid test as before, but obtained no reaction, owing, no doubt, to the fact that the viscid bile had not passed through the filter paper in sufficient quantity to respond to the nitrous acid test. This reaction on the filter paper is best observed in a somewhat shaded portion of the room.

ESTIMATION OF HEMAPHEIN IN URINE.

For diagnostic and prognostic research it is very important that in the examination of urine hemaphein be not confounded with urobilin. The reagents heretofore applied for the detection of the former, namely, amyl alcohol or acetic ether in the presence of hydrochloric acid, cannot be well recommended as they partially destroy the pigment. Florence (*Journ. pharm. chim.*) has obtained good results by using acetone for the isolation of hemaphein. He proceeds as follows. A convenient quantity of red-colored urine is mixed well in a separator with one-fifth its volume of acetone and an excess of ammonium sulphate. When the liquids have separated, the urine, saturated with ammonium sulphate, is drawn off, the acetone washed with a saturated solution of the ammonium salt to remove urea, acids, etc., and after dehydrating by shaking with dry ammonium sulphate, evaporated in vacuo. The residue left after evaporation is dissolved in absolute alcohol, the solution filtered and evaporated again. From the combined pigments, thus obtained, the urobilin is extracted by chloroform, when red-colored hemaphein remains undissolved. Unlike urobilin, hemaphein does not produce a band in the spectrum nor does it yield a fluorescence with zinc salts.

CLARIFYING URINE.

Garcia (*Bull. Assoc. Chim. Sucre*, through *Rép. de pharm.*) has examined the various methods recommended for clarifying urine before subjecting it to the tests for albumin, and has found that by applying infusorial earth, tripoli or lead dioxide, clear filtrates can be obtained, but most of the albumin present is absorbed by these substances. Only pumice stone, precipitated silicic acid, and litharge do not retain the albumin.

COLOR REACTION OF CHOLIC ACID.

The following color reaction for cholic acid has been found by Hammarten (*Zeit. physiol. Chem.*). The acid is shaken with hydrochloric acid (25 per cent.) in a glass stoppered bottle at ordinary temperature, when the mixture will acquire a yellow or yellowish-green color. Within 4 to 8 hours this color turns to a bluish-violet and after standing for 24 hours the mixture will have assumed a beautiful violet color.

Oil of Turpentine Adulterated with Copal.

Vaubel (*Apoth. Zeit.*) has found oil of turpentine which had been adulterated with copal. Owing to the non-volatile character of copal and its peculiar odor and acid reaction it can easily be detected in the residue which is left after distilling the oil of turpentine. The present high price of the oil will doubtless induce much adulteration.

Abstracts

Production of Clean Milk.

Heinemann (*Hoard's Dairyman* through *Journ. Am. Med. Asso.*) says that unfortunately heretofore certified milk has been produced at little or no profit, chiefly because of lack of demand and the higher price charged for it. It is generally marketed by dairies with considerable capital, and occasionally from philanthropic motives, so that it is a belief among the ordinary producers that only a rich man or a crank will attempt to produce it. He believes that this is a misconception; that clean milk can be produced advantageously, and that even certified milk can be produced with a small outlay of money. He cites the instance of a dairy in Wisconsin which markets in Chicago, 100 miles away, milk with a bacterial content of less than 2,000 bacteria per cubic centimeter—in many instances less than 1,000—which returns a fair profit on the investment with milk at six cents a quart in bottles at the farm. This dairy has only thirty cows and produces 250 quarts of milk per day. It has been fitted up with the equipment and supplies of a modern sanitary dairy—cement floors, stalls and stanchions, water-supply, washing and sterilizing machines, bottling machine, bottles, cooling apparatus, pails, cans, etc.—for less than \$1,650. There is abundant light and ventilation in the stables, and every detail of clean milk production is carried out rigorously. The author believes that this example forms a justifiable basis for the assumption that certified milk can be produced with a small investment at a profit if the owner or superintendent will look after each detail with proper care and intelligence, and that for the production of a milk of exceptional cleanliness and quality, even if not up to the standard of certified milk, a much smaller investment than the estimate given would be sufficient. On account of the interest aroused by sanitarians and scientists in this subject, the public will soon demand of all milk-producers milk of this standard.

Danger of Ethyl Chloride as an Anesthetic.

Wood (*Journ. Am. Med. Asso.*) points out the misleading character of statistics in the case of danger from ethyl chloride as an anesthetic. Combining those given by two different observers a mortality of 1 in 5,170 is shown. The statistics on ether and chloroform of Coates, Gould, Garee, Gurlt and others covering several million cases, give a mortality from chloroform of about 1 in 3,500, and from ether, 1 in 15,000. But while from the statistical standpoint, ethyl chloride would seem to stand between ether and chloroform, but close to the latter, this conclusion is unfair, says the author, because the anesthetics by ethyl chloride have practically all been of but a few minutes' duration, and the secondary dangers which occur as a result of prolonged anesthesia and which have caused a considerable bulk of the fatalities of ether and of chloroform do not come into consideration in the case of ethyl chloride. Ethyl chloride on account of the quickness and fugaciousness of its action, enters into competition with nitrous oxide gas rather than with ether. If we set alongside of the commonly accepted mortality for nitrous oxide, 1 death in 1,000,000 anesthetics, and the figures for ethyl chloride, 1 in 6,000, the danger of this agent is evident.

The Dust Nuisance in Street and House.

Under this heading the *Boston Medical and Surgical Journal* writes: "Nothing further seems to be heard nowadays about the campaign against promiscuous expectoration in Boston. Its place in popular interest has apparently been taken by the agitation against the dry sweeping of streets, a practice long recognized by physicians as abominable, but recently brought into public prominence by various interviews on the subject published in the daily press. There can be no doubt that clouds of dust, whether stirred up by sweeping or by the wind, are a disagreeable and dangerous irritant to the respiratory tract and predispose it to infection by various organisms. It is probable that city dust also disseminates numerous pathogenic bacteria, notably those of tuberculosis. The great increase of colds, influenza, pneumonia and other respiratory infections during dry, windy weather when there is no snow on the ground is evidence in the experience of every medical practitioner that dust is a factor in their production. Various methods have been suggested to check the dust nuisance, such as sprinkling the streets with oil or with calcium chloride solution, sweeping them wet instead of dry, and hooding the sweepers with canvas covers. Popular discussion of the problem is likely to produce some good. Incidentally it would be still better if this campaign, carried into the home, should lead to the abolition of that pernicious domestic fallacy, sweeping-day, which still survives to be the curse of many a New England household."

Alcoholism and Tuberculosis.

Lister (*Med. Press*) is of opinion formed after an experience of many years that among the most common conditions found associated with consumption is that of alcoholism. At one time, and not so long ago, it used to be the custom to give alcohol in somewhat large quantities to phthisical patients. The administration of alcohol combined with overfeeding used to be the routine practice in Nordrach Sanatorium; this, however, is now discontinued. In the opinion of the author alcoholism is very closely allied to the causation of tuberculosis, and in the prognosis of the disease he thinks it may be accepted as an axiom that the chronic alcoholic does not materially benefit by any amount of treatment. For instance, studies of mortality statistics show that the list of occupations suffering most from alcoholism almost coincides with the list of occupations in which phthisis figures most significantly.

Blindness from Atoxyl.

It has been known for some years that the use of atoxyl and similar arsenic preparations is attended with risk to the eyesight. Steindorff (*Berl. klin. Woch.* through *Cal. State Journ. Med.*) from a careful search of the literature has been able to collect as many as 95 cases of disturbances of vision or actual blindness following the use of atoxyl. Stopping the drug after symptoms have appeared does not check the progress of atrophy of the optic nerve which it induces, nor does other treatment seem to have any effect for improvement. An eye already the subject of disease often shows an increase in development of the original disorder.

Electric "Catapasm."

Marcuse (*Nouv. Rem.* through *Pharm. Journ.*) has for some time employed a device of Hilzinger for the direct application of heat to various parts of the body, using electricity as the source of heat. These electric "cataplasms" are composed of soft pliable knitted fabric containing a system of resistance wires. Insulation is obtained by means of glass beads. The wires are placed between layers of asbestos. The apparatus can be attached to any source of current, not exceeding 120 volts in tension, and they can be exactly adjusted to any required degree by regulating the flow of current. The "cataplasms" are made of different shapes to fit different parts of the body.

Infusion of Digitalis.

According to Hertzfeld (*Pharm. Centralb.* through *Chem. and Drug.*) an infusion of digitalis representing all the activity of the leaves can be made as follows: Free the leaves from stalks and veins; finely powder the residue, and add the water, keeping the infusion at a temperature of 50° C. for one hour. Allow the infusion to cool to 32° C. and add 10 per cent. of alcohol. After it has stood for twelve hours, filter, express, and make up to the quantity with water.

Detection of Arsenic Acid in Presence of Phosphoric Acid.

Maderna (*Chem. Zent.* through *Journ. Soc. Chem. Ind.*) proposes the following method for the detection of arsenic acid in the presence of phosphoric acid. A small quantity of a solution containing the alkali salts of the two acids is rendered faintly acid with acetic acid, treated with 10 to 15 c.c. (mils) of a concentrated solution of ammonium nitrate, then heated to incipient boiling, and about 1 gram of solid ammonium molybdate added. After the molybdate has dissolved, the solution is boiled for a minute and a half, the presence of arsenic acid being indicated by the formation of a white precipitate of arsenomolybdate. It is stated that 0.002 gramme of arsenic acid can be detected even in presence of large quantities of phosphoric acid. Calcium, strontium, and magnesium salts render the reaction less delicate, but do not prevent it.

Physostigmine in Poisoning by Magnesium Sulphate.

Joseph and Metzger (*Journ. pharmacol.*) are convinced by careful research that physostigmine is capable of efficiently antagonizing some of the toxic actions of magnesium salts. It may directly serve as a life-saving agent against fatal poisoning by magnesium salts, if the dose of the latter employed be not too large. Physostigmine overcomes the toxic effects of magnesium essentially by the aid it renders to the depressed function of respiration. This aid is of three-fold origin. It stimulates the respiratory center; it antagonizes the "curare-like" action of the magnesium-ion on the nerve endings of the pneumogastric nerves within the lungs; physostigmine antagonizes also the magnesium action on the peripheral nerve endings and probably also the action on muscle tissue. The extent of this antagonism, however, seems to be not very significant.

Calmine: Risks from Such a Preparation.

The *Journal of the American Medical Association* mentions a preparation sent out as a new and specially valuable hypnotic, under the name of calmine. It is, says the *Journal*, nothing more than the sodium salt of veronal, "from which it differs only in that the combination with sodium has made it more readily soluble, and thus it is claimed its absorption is more rapid. It is also sold as medinal. Veronal is protected abroad by a trade-mark and in this country by a patent, and this is undoubtedly the cause of the introduction of the sodium salt under these fanciful names. This is probably only the beginning and we may look for it under a host of other names with the usual results that thoughtless physicians who have had poor results with it under one name will try it under others. Or, worse still, they may combine veronal with calmine or with medinal in the same prescription, thus giving a dangerous dose."

Organization Against Tuberculosis.

To show the rapid spread of the work against tuberculosis, the *Boston Medical and Surgical Journal* gives figures to show the relative number of sanatoria and hospitals for tuberculosis, special dispensaries for its treatment, and anti-tuberculous organizations in the United States in 1904 and 1910. From these figures the appended table is made up:

	1904.	1910.	In-crease in num-ber.	In-crease per cent.
Sanatoria and hospitals..	133	400	267	200
Special dispensaries.....	32	300	268	838
Organizations	39	450	411	1,054

— It seems that the campaign of education concerning the great white plague is showing results well worth while.

Magnesium Sulphate in Tetanus.

Fox (*Med. Rec.*) reports a case of tetanus in which after treatment with antitetanic serum without effect the patient continuing to grow worse, it was decided to use magnesium sulphate intraspinally. Two cubic centimeters of the cerebrospinal fluid were withdrawn by lumbar puncture and an equal amount of a 25 per cent. solution of this salt was injected. Four hours after this injection, all four extremities had become very much relaxed, and from this time on the patient steadily improved. A case of recovery from tetanus following the use of magnesium sulphate was reported in the *CIRCULAR* for July, 1910, page 359, the drug in this latter case being administered subcutaneously.

Liability of Cities for Water Pollution.

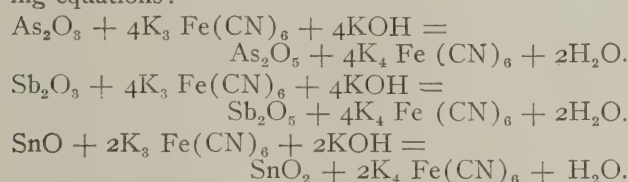
Following an epidemic of typhoid fever at Mankato, Minn., which the State board of health determined to be due to the pollution of the city water supply by sewage, the widows of two men who died of the disease brought suits for damages against the city on the ground that their death was due to the negligence of city officials. The city demurred, and this demurrer was appealed to the supreme court, which has decided that such suits can be maintained against a city and that the city is liable; if damages can be proven.

Determination of Minute Quantities of Calcium in Presence of Much Magnesium.

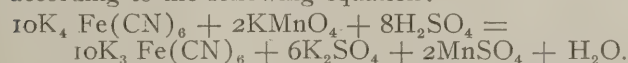
Liesse (*Ann. chim. anal.* through *Pharm. Journ.*) proposes a method of determining minute quantities of calcium in the presence of much magnesium, which consists in precipitating the calcium as oxalate in solutions so dilute as to keep the magnesium oxalate dissolved. From 1 to 2 grammes of the substance is treated with 20 to 25 c.c. (mils) of hydrochloric acid, then diluted to 100 or 200 c.c. (mils) with water, and made just alkaline to phenolphthalein with ammonia. Insoluble matter is then removed by filtration; the filtrate is diluted to 1,500 c.c. (mils) for each gramme of substance taken, this dilution being made in the cold. Four grammes of ammonium oxalate crystals are then added, and sufficient acetic acid to give an acid reaction. After standing two hours, with occasional agitation, the liquid is filtered and the precipitate is washed with three portions of 150 c.c. (mils) each of hot water. The precipitate is then gently ignited, and weighed as calcium carbonate. Although the volume of liquid required to be filtered is considerable, filtration is very rapid.

Estimation of Arsenic, Antimony and Tin.

By allowing potassium ferricyanide to act on arsenic trioxide, antimony trioxide and stannous oxide in the presence of potassium hydroxide, these substances are oxidized to arsenic pentoxide, antimony pentoxide and stannic oxide with the reduction of the ferricyanide to ferrocyanide, according to the following equations:



Palmer (*Zeit. analyt. Chem.* through *Rép. de pharm.*) has based on these reactions a process of estimating arsenic, antimony and tin by titrating the ferrocyanide formed with potassium permanganate solution, according to the following equation:



Danger of Wire Nets in Surgery.

Riem. (*Arch. klin. Chir.* through *Bost. Med. and Surg. Journ.*) reports observations as to the final condition of nets woven of silver wire after having been sutured into the abdominal wall to close a hernial gap, that convince him that their use is not only foolish, but dangerous. The silver becomes eroded, the net loses its shape and may possibly wander through the tissues until its loose ends of wire puncture an artery.

Risk of Tetanus from Kaolin Paste.

It is reported in *Therapeutic Medicine* that several cases of tetanus have occurred in Germany which were apparently caused by a kaolin paste dressing. This suggests the risk always present in such a preparation, as sterilization is very difficult and may be imperfect.

Separation of Aluminum from Iron.

Barbier (*Bull. soc. chim.*) has employed sodium hydrosulphite ($\text{Na}_2\text{S}_2\text{O}_4$) with advantage for the separation of aluminum from iron. The solution containing the metals is mixed with a slight excess of sodium acetate and then carefully with a 10 per cent. solution of sodium hydrosulphite until the reddish color produced by the sodium acetate has disappeared. By boiling the mixture the aluminum is precipitated in a dense condition and can easily be filtered out, while the iron remains in solution in the ferrous state. If the mixture contains beryllium in addition to aluminum and iron, the former is precipitated with the aluminum, from which it can be separated by treating the well-washed precipitate with a concentrated solution of ammonium carbonate, allowing the mixture to stand for 36 hours, separating the aluminum by filtration and precipitating the beryllium from the filtrate by boiling.

True Arbutin.

According to Hérissay (*Pharm. Post.*) true arbutin gives glucose and hydroquinone on hydrolysis with emulsin. Commercial arbutin, by which name extract of uva ursi is marketed, is a mixture of true arbutin and methyl-arbutin, the latter giving on hydrolysis, methyl-quinone. Attempts to separate arbutin and methyl-arbutin by fractional crystallization were of no avail. The author succeeded in isolating the former by dissolving commercial arbutin in alcohol, precipitating with caustic potash, dissolving the precipitate in acetic acid and reprecipitating the solution with potassium carbonate. From the potassium salt of true arbutin, thus obtained, the latter can easily be isolated. It crystallizes with one molecule of water, turns polarized light $63^\circ 5'$ to the left and seems to be identical with the glucoside previously isolated from pear leaves by Bourquelot and Fichtenholz.

Soja Beans for Diabetics.

By prescribing for diabetics food containing a comparatively large amount of fats (walnuts, hazel-nuts, pea-nuts, etc.,) the amount of glucose in the urine can be considerably diminished. Le Goff (*Gazette des Hopit.* through *Rép. de pharm.*) has found that the same gratifying results can be obtained by putting the patients on a soja bean diet. Soja beans are rich in fatty substances (20 per cent.) and proteins (41 per cent.) but poor in starch and other carbohydrates (14 per cent.) and consequently are very suitable as diet for diabetics. The author also reports having succeeded in raising the beans in France.

Poisoning by Heroine.

Trawick (*Kentucky Med. Journ.*) reports a case of severe poisoning following the injection of $\frac{1}{2}$ grain of heroine, a short time after an operation for chronic appendicitis. The symptoms appeared within ten minutes. The patient had the appearance of a person profoundly under the influence of an opiate. After about an hour of medical and mechanical stimulation and manipulation, the respiration count was about ten to the minute, but during that hour it had been very irregular, going from four to eight a minute, and back to four. The pupils were contracted to pinpoints during this time. The patient recovered.

The Modern Materia Medica.

Adipol is a mineral-fat preparation, capable of absorbing up to 30 per cent. of water.

Amidoazotoluene Dusting Powder is said to consist of amidoazotoluene, zinc peroxide, and bismuth subnitrate.

Amigrin has been said to be "magnesium acetyloxybenzoate." According to Zernik it seems to be a mixture of calcined magnesia and acetylsalicylic acid.

Casona Cheese is a soft cheese, combined with agar-agar. It is offered as a preventive of constipation.

Cement Paste, Dr. Dreuw, is said to consist of sulphur, ichthyol, and Lassar's paste.

Cinnamic Acid Allylester occurs as a yellowish liquid possessing an aromatic odor. It is put forward for the treatment of tuberculous ulcers.

Citrospirinum, exploited for the treatment of influenza, headache, rheumatic pain, etc., possesses the properties of acetylsalicylic acid and citrated caffeine.

Cremor sico is the name for drying creams containing salicylic acid, borax, lysoform, etc.

Cytone contains creosote, terpene and indifferent oils.

Danzol is, according to recent investigations, a methyl alcoholic extract of arnica and contains formic acid (which may yield additional methyl "alcohol by splitting up" in the system). The danger of the use of methyl alcohol even for external application is well known. Blindness has been produced from exposure to the vapor.

Dermaseife (soap) is a mild sulphur soap.

E Fue Sa are tablets for the treatment of obesity; they are said to contain an extract of bladder-wrack.

Eklekt is the name for a nutritive preparation made from milk and malt.

Enterorose, exploited for the treatment of disturbed digestion in children, is a mixture of wheat and oat starch partially converted into dextrin by the action of diastase.

Eumictol is a solution of zymargol, an organic silver compound.

Funk's Creosotaller III, Comp. is said to contain creosotal, sodium cinnamate and benzoate, menthol, albuminoids and flavoring agents. It is marketed in the form of pearls.

Gastrozymase is the natural gastric juice of the pig, obtained by a special process and dried. It is intended for use in gastric affections.

Globularin is a glucoside isolated from globularia alypum. It is put forward for treating diabetics whose urine does not contain acetone, acetic acid or other ketones.

Hercynia is the name for a stimulant which is said to contain the water-soluble extractive matter of *agaricus campestris*.

Hémoneurol granulé Cognet is said to contain oxyhemaglobin, kola extract, calcium glycerophosphate, and sugar.

Hormonadin is a preparation derived from the pancreas.

Hydropyrin Grifa is lithium acetylsalicylate. It occurs as a white crystalline powder, which is water-soluble and almost odorless.

Hydroxycodine is a new opium alkaloid. It is a tertiary base with the formula $C_{18}H_{21}O_4N$; it melts at 51° and forms a hydrobromide, which crystallizes in large prisms. It is slowly soluble in water and the organic solvents.

Iubol is the name for tablets recommended as a laxative. They are said to contain agar-agar, and extracts of bile and pancreas.

Katalbad is the name of a preparation for making oxygen baths.

Kacepe Balsam is said to consist of acetylsalicylic acid mentholester, acetylsalicylic acid ethylester and lanolin ointment. It is exploited as an application in rheumatism.

Lethargin is a witchhazel extract containing novocaine.

Lipochol Emulsion and Pilules contain cholesterol.

Locosemin, recommended as an anesthetic, seems to be almost identical with *eusemin*.

Mellonal is the name for an extract of various drugs, amongst others myrtle leaves, uva ursi, zygii jambolani, and linseed.

Neoborat is another name for sodium perborate.

Neue Novichtankopfwaschseife is the name for a soap, said to contain "novichtan," a substance described as being obtained from bituminous coal oil.

Novocol-Chinin is quinine monoguaiacol phosphate.

Nucléatol Robin consists of sodium nucleophosphate.

Nutromul is a cotton seed oil emulsion containing calcium, sodium and magnesium hypophosphites.

Oculenta is the name of ointments used for the treatment of eye diseases.

Oxydol is a perhydrol mouth water.

Paracreolin is the name for a disinfectant, nearly related to creolin Pearson.

Plasma von Quinton is sterilized sea-water, diluted with sufficient distilled water to obtain a mixture which is isotonic with the human blood-plasma. It is used hypodermically.

Poeschol, recommended for the treatment of rhinitis, is said to contain boric acid, solveol, salol, menthol and camphor.

Proiodin seems to be identical with lactoide. It is a combination of iodine with lactalbumin.

Scharff's Solution is said to contain morphine, atropine sulphate, and antipyrine.

Sulfoform is another name for triphenylstilbin-sulphide.

Thymorybolum is the name of a syrup of potassium sulphoguaiacolate.

Thyratoxine de Byla is a thyreoidin preparation.

Ureochinin is quinine hydrochlorocarbamide.

Vanodrin, a dental anesthetic, is said to contain novocaine, and adrenalin hydrochloride.

Application for Perspiring Feet.

Dried alum.....	50 grammes.
Salicylic acid.....	5 grammes.
Tannin	15 grammes.
Powdered talc.....	430 grammes.

Notes and Queries.

NOTICE.—It is desirable that all questions to be answered under this head should be received before the fifteenth of the month and they must be accompanied with the name and address of the writer.

Queries are not answered by letter. The information supplied in these columns is intended for the benefit of our readers in general, not for the profit of the individual inquirer only.

Determining the Alcoholic Content of Tinctures.—C. I., Michigan.—As tinctures usually are preparations with known formulas, we presume that you do not wish to know how analysts determine the proportion of alcohol in a liquid by chemical means, but rather how the quantity of the spirit in a tincture is ascertained by computation. This is done by a very simple mathematical calculation, plus the exercise of some judgment as to the amount of space occupied in the tincture by matter extracted from the crude drug—that is, in cases in which such extractive is present; and in other cases, the corresponding factor must be considered.

For instance: Tincture of calumba is made by exhausting the drug with a menstruum composed of 600 c.c. (mils) of alcohol (U. S. P.) and 400 c.c. (mils) of water. As the bulk of the extracted matter in this case is not great, it is easy to see that the finished 1000 c.c. (mils) of tincture contains nearly 600 c.c. (mils) of official alcohol, equivalent to 95 per cent. of 600 c.c. (mils), or 570 c.c. (mils) of absolute alcohol. Owing to the ease with which percentage calculations are made when one is working with the metric system, a glance suffices to show that 570 in a thousand is the same as 57 in a hundred, or 57 per cent. by volume.

In the case of tincture of ferric chloride the amount of space occupied by the ingredient other than the menstruum is sufficiently large to be taken into consideration. Official alcohol, undiluted, is used in making this tincture, but the solution of ferric chloride is 35 per cent. of the bulk of the finished product, leaving 65 per cent. for the alcohol; and 65 per cent. of official per cent. alcohol is about $61\frac{3}{4}$ per cent. of absolute alcohol.

Then take ammoniated tincture of guaiac as an example involving a somewhat different kind of calculation. Here not only does the drug occupy an amount of space that has to be allowed for, but the percentage of official alcohol in the menstruum, aromatic spirit of ammonia, is not self-evident. Reference to the formula for the menstruum shows that it contains 70 per cent. of official alcohol, equal to $66\frac{1}{2}$ per cent. of absolute alcohol; and somewhat less than this percentage is in the finished tincture, just how much less depending upon the amount of space occupied by the guaiac, which is not great enough to change this figure to any large extent.

Tincture of ipecac and opium is made by mixing three ingredients in all of which alcohol is present. In fluidextract of ipecac, of which 100 c.c. (mils) is used to the 1000 c.c. (mils) of finished tincture the percentage of absolute alcohol is about 71; and in diluted alcohol, of which about 100 c.c. (mils) is used, it is about 49. In the partially evaporated tincture of deodorized opium the alcoholic percentage is very small, as it was not large at first, and the alcohol is probably the first thing to go off in the evaporation process; and this tincture of deodorized opium consti-

tutes a large portion of the bulk of the finished tincture. Allowing 800 c.c. (mils) for the partially evaporated tincture of deodorized opium, with no alcohol; 100 c.c. (mils) for the fluidextract of ipecac, with 71 per cent. of absolute alcohol; and 100 c.c. (mils) for the diluted alcohol, with 49 per cent. of absolute alcohol, we proceed, by alligation, as follows—

Percentage.	c.c. (mils).	
0	800	= 000
71	100	= 7100
49	100	= 4900
	1000	) 12000 (12
		1000
		2000
		2000

—the quotient, 12, representing the percentage of alcohol. This is a rather rough calculation. Others have calculated the percentage of alcohol in this tincture and arrived at the same result that we have, while still others have published results ranging as high as 20 per cent.; and one even got as high as 45 per cent., but how, perhaps even he himself could not explain.

An article by Prof. Wilbur L. Scoville, on the estimation of alcohol in galenical preparations by laboratory means, was published in the CIRCULAR for January, 1908, page 6, and a further note on the subject of such estimations, with a correction of a typographical error in the first-mentioned, appears in the issue for the following month, page 71.

Elixir of Chromium Sulphate.—"Inquisitive," Pennsylvania.—There are four chromium sulphates varying considerably in color and solubility. The one physically best adapted to the making of a stable solution in hydro-alcoholic solvent in the chromous variety ($\text{CrSO}_4 \cdot 7\text{H}_2\text{O}$). This is a blue crystalline salt. We believe, however, that the chromic salt is the one used in medicine. This salt occurs as dark-green scales, as a green powder, as red crystals, and as violet crystals, depending upon the amount of water it contains. The scale salt is readily soluble in water, and its solutions will withstand the addition of alcohol.

Try the following formula:

Chromic sulphate (green scales)	33 grammes.
Distilled water.....	550 c.c. (mils).
Glycerin	250 c.c. (mils).
Alcohol	200 c.c. (mils).
Oil of orange.....	2 c.c. (mils).
Oil of pimento.....	1 c.c. (mil).
Paper pulp.....	enough.

Dissolve the chromium sulphate in a minimum quantity of the distilled water. Dissolve the oils in the alcohol; add the glycerin to the alcoholic solution, and shake with some shredded paper pulp. Add the remainder of the water to this mixture; shake again, and filter. Mix the filtrate with the solution of the chromium salt.

Headache Cologne.—G. L. B., New Jersey.—Generally speaking, headache colognes are simply weak cologne waters in which menthol or menthol and camphor have been dissolved. We are not able to say just what proportions any certain manufacturer uses, but a little experimentation should enable you to hit upon something satisfactory.

Parts in a Thousand on a Percentage Basis.—R. E. A., Ohio, whose query concerning the quantity of a 1-in-1000 solution it is necessary to use to make 1 ounce of a 1-in-10,000 solution was answered in the CIRCULAR for February, page 80, writes that he wants the answer worked out on a "percentage basis." Just why he should desire to complicate the question by introducing percentage, we are unable to see; one can not measure "percentage" in a graduate, but having ascertained mathematically what the bulk of a certain percentage of a liquid is, he can then measure that bulk in a graduate.

Our way of going about the diluting of a stock solution to make a solution of less strength, is thus stated in the February issue:

In diluting a 1-in-1000 solution of a salt to make a 1-in-10,000 solution, it is evident that 1000 parts of the stock solution (containing 1 part of the salt) added to 9000 parts of water, will make 10,000 parts of the diluted solution containing 1 part of the salt, or, 1 part to 9, to make 10. The prescription called for 1 ounce of the diluted solution. If 1 ounce is 10 parts, then 1 part is $1/10$ of 1 ounce and 9 parts is $9/10$ of 1 ounce. An ounce being 480 minims, $1/10$ of 1 ounce is 48 minims, and $9/10$ of 1 ounce is 432 minims. By adding 48 to 432 we get 480, by way of proof of the correctness of the work.

Percentage is always based upon parts in 100. In the case before us, instead of saying 1000 parts and 9000 parts make 10,000 parts, we might say 10 per cent. and 90 per cent. make 100 per cent. Then, 100 per cent. being 480 minims, 10 per cent. would be 48 minims and 90 per cent. would be 432 minims.

In order to arrive at the correct percentages in all cases, as in many it is not so apparent as in the one before us, we divided the number of parts of the finished solution to contain 1 part of the solid (in this case, 10,000) by the number of parts of the stock solution containing 1 part of the solid (1,000); then divide 100 (the basis for all percentage work) by the quotient (10), when the new quotient (10) will be the percentage of the stock solution to be used in making the diluted solution. The amount of the latter to be made, whether $\frac{1}{2}$ ounce, 1 ounce, 50 ounces or a barrelful, is always 100 per cent. In the case before us it is 1 ounce, or 480 minims, so we find, as before that 480 minims being 100 per cent., 10 per cent. is 48 minims, and the other 90 per cent. is 432 minims.

As it is necessary to reduce the percentages or parts to specific terms, as minims, or ounces, or gallons, before we can measure them, no matter how we calculate, it seems to us that the process given in our February issue is as simple as any.

Preventing Perspiration.—F. W. W., Missouri.—While there are a number of drugs which when taken internally have a tendency to diminish perspiration, we think it best for pharmacists to leave the prescribing of them to physicians. Local applications of tanning substances, as tannic acid, formaldehyde, etc., also retard perspiration, but we feel that when it comes to a matter of interrupting a natural function of a human organ, those who are not familiar with the importance of that function and the seriousness of the consequences of its partial cessation, should keep hands off. If they must make experiments in the realms of some higher science about which they are lacking in knowledge, let them predict eclipses, read the story of the changes which have taken place

in this old earth as written on the rocks, or do some other such stunt which will result in no injury to a fellow mortal. They might even experiment on a fine gold watch that needed attention, for if they ruined it another could be bought for a hundred dollars; but when a human organism is damaged, the injury is often irreparable.

It may be considered within the province of a pharmacist to supply something to overcome the disagreeable odor of perspiration, and for this purpose he may sell a powder consisting principally of sodium bicarbonate, with a little starch or talc, boric acid, and perfume added.

Pharmacy in South America.—J. S. S., Pennsylvania.—Joseph Jacobs, of Atlanta, Ga., was elected chairman of the section on commercial interests of the American Pharmaceutical Association in 1897, and with characteristic energy he at once started something. As a result, there was issued from the bureau of foreign commerce at Washington, a book entitled *The Drug Trade in Foreign Countries*, made up principally of reports from United States consuls. This book is volume XIV of the special consular reports, and was printed in 1898. Doubtless it may be obtained from the superintendent of documents at Washington, either direct or through the intervention of a member of congress.

In this volume is given much general and specific information about the practice of pharmacy and the sale of drugs in the various countries of the earth. As this information may not be up to date in many instances, it might be well for anyone wishing to migrate to South America (or any other foreign quarter of the globe, as to that) to write to the United States consul in the city in which the inquirer thinks of locating, and ask for later information as well as for elucidation of any points on which the seeker for information desires more light. It would not be a bad plan for the inquirer to enclose a letter addressed to some American druggist doing business in the city, requesting data from one who really has them—one who can speak *ex cathedra*.

Formaldehyde Cones.—F. F. Z., New Jersey.—Cones or pastilles from which formaldehyde is liberated upon ignition, have paraformaldehyde as their base. This may be formed into pastilles by massing it with charcoal and saltpeter, about 10 or 12 parts of charcoal to 1 of saltpeter, using mucilage of tragacanth as the binding material. The cones are weak in formaldehyde and inferior in disinfecting power to the lamp outfits.

While some authorities seem to regard lightly the statement that formaldehyde is a dangerous poison and that its vapors may cause serious eye trouble if not even actual loss of sight, in view of the warning given in the United States Dispensatory it behooves druggists to be careful in their handling of this drug and to protect their customers by oral and printed caution concerning its nature. The statement in the United States Dispensatory is: "Upon the higher animals its [formaldehyde's] action is comparatively feeble, excepting as a violent irritant, producing when inhaled, even in an extremely diluted form, severe bronchitis or even pneumonia, and when taken internally a severe or fatal gastritis."

What Is an Ounce?—N. C. C., Minneapolis, in excusable bewilderment, writes as follows regarding a formula which appears in a recent number of the CIRCULAR:

We would like to know if the pounds and ounces mentioned are troy or avoirdupois, and whether the glycerin is given as liquid ounces or ounces by weight. Speaking generally, are the formulas in the CIRCULAR based upon troy ounces or avoirdupois, and where glycerin is mentioned is it by weight or liquid measure?

As the formula in question was a contributed one, we find ourselves unable to answer the first part of the question categorically, but our understanding is that when weights are mentioned without qualification, except in prescription work, avoirdupois weights are meant, and that the practice of American druggists is to weigh solids and measure liquids.

If it were possible to show to those who still blindly stick to it the absurdity of the old-style system (or lack of it) of weights and measures, the mere publication of this inquiry would be sufficient to do this. No one who is not so thick-headed that he can not see, or so stubborn that he will not look, can fail to be impressed by the statement of the feeling of uncertainty in which our correspondent finds himself. An ounce of glycerin may be—

an avoirdupois ounce, or 437.5 grains,
a troy ounce, or 480.0 grains, or
a fluid ounce, or (about) 566.5 grains.

In Canada there is the imperial ounce, which is different from any of the three just mentioned, and in other countries there are other ounces not so well-known on this side of the water.

Recognizing the advantages of the decimal system of weights and measures, scientific men the world over employ them, and in Continental Europe these standards are used largely in trade—especially the drug trade. In this country the metric system is the legally authorized one, and is in use exclusively in many of the departments of the United States government. So far as we know, no country or individual has ever gone back to the old-style weights and measures after having used the decimal system, and is no more likely to do so than we are to abandon our convenient dollars and cents and return to the cumbrous British pounds, shillings and pence. Opposition to the metric system comes from those who do not use it, but who, when compelled to work with quantities expressed in it, employ the old-style weights and measures and a table of equivalents. If required to do this, even the metric enthusiasts would doubtless vote to return to the old-style.

Eckman's Alterative.—G. N. T., New Jersey.—This is one of a great many preparations offered as a remedy for tuberculosis. Giving the patient plenty of pure air and nourishing food is now considered the proper treatment of weakening lung affections, and those who offer something in a bottle as a remedy may well be regarded with suspicion—not to use a stronger word. Honest and intelligent people among physicians, pharmacists and the general public are standing together to point out to the long-deluded public the ignorance or dishonesty of those who claim to be able to cure consumption with drugs.

In its issue for October, 1909, the *Sanitary Bulletin*, published by the New Hampshire Board of Health, contains a number of notes on proprietary

remedies, which were reprinted in the CIRCULAR for April, 1910, page 195. Concerning Eckman's alterative this *Bulletin* said:

We read that this preparation was perfected by a veterinary surgeon, who first demonstrated its curative (?) properties upon cattle and later upon a member of his family. The present proprietors of this alleged remedy issue a booklet abounding in claims to the effect that the preparation is a cure for consumption. "We do not claim to cure tuberculosis in the last stage, although we have such cases of record." The analysis shows 6.80 per cent. of total solids on evaporation, consisting mainly of calcium chloride, the quantity of this salt found, calculated to the anhydrous condition, amounting to 3.59 per cent. Some suspended matter noted consisted of powdered clove. The preparation is held as misbranded.

Pharmacists would do well to let the public understand that pharmacy has nothing in common with the manufacturing of such preparations. That we are not giving our readers advice which we are unwilling to take ourselves, is shown by the fact that we have excluded the advertisement of this article from the pages of the CIRCULAR.

Liquid Peptonized Foods.—T. D. S., Pennsylvania.—Something more than simply a formula is necessary for the preparation of a liquid containing peptonized or almost-peptonized proteids of meat, milk and wheat, because the making of peptones and peptonates is a formidable task even for the trained manufacturing chemists. Two gentlemen of this profession, Messrs. Scoville and Howard, covered well the various phases of the subject in a comprehensive article in the CIRCULAR for December, 1898, pages 287 and 288. In the issue for April, 1907, page 307, appears a reply to a querist of which the following is the principal part:

So far as we know, a palatable preparation of peptones has not yet been made. A careful scrutiny of the labels of some "peptonoids," and similar preparations, discloses the fact that these are not offered as preparations of peptone, but are said to be "digested" products, or to "contain peptones," from beef, wheat and milk. Analyses of such preparations in Dr. Allen's laboratory showed that these liquid "peptonoid" preparations contained respectively 0.43 per cent., 0.48 per cent. and 0.52 per cent. of peptone with traces of albumoses and meat-bases. A "peptonoid" in powder form yielded 0.88 per cent. of peptone in a total of 16.27 per cent. of proteids of which 12.22 per cent. were insoluble proteids, and 3.17 per cent. were albumoses. The powder contained 23.64 per cent. of starch and 48.52 per cent. of milk sugar. The amount of peptone in any of these preparations is too small to be of much medicinal value.

The trouble is that when digestion is carried out to completion, bitter substances are formed that are very unpalatable, and no means of overcoming this objection have yet been devised. So the apparent aim of such preparations is to exhibit a form of soluble proteids which have been digested as far as is practicable, but in which only a trace of peptone is formed, and which is free from bitterness. If, for instance, milk be treated with pancreatin and sodium bicarbonate at a temperature of 38° C. for five minutes, the casein will be partially converted so that it will not coagulate in clots, but will show little change in taste and appearance. If the milk be treated in an open vessel, this change can be watched. The milk first forms a thin pellicle, then becomes gradually but softly curdled. The curd then gradually redissolves and the milk recovers its original appearance, until the peptone is formed, when the milk loses its whiteness and assumes a dull yellowish-gray shade. It then has a bitter taste. This last stage must, therefore, be avoided and yet approached as closely as possible.

For making beef peptones there are two methods. One, and probably the best one for ordinary purposes, is to treat the beef with superheated steam. This does not form true peptone, but makes "pseudo-peptones," which are soluble and somewhat more easily digested. The other

method consists of treating the meat with pepsin and 2 per cent. hydrochloric acid for six hours, or until a slight bitterness appears, at a temperature of 52° C. with constant stirring. This changes the albumin to albumose, and forms a very small proportion of peptone.

The manufacturers of a proprietary liquid "peptonoid" preparation state (Standard Formulary) that their product contains

Proteids (peptones and propeptones)	5.25 per cent.
Lactose and dextrose.....	11.30 per cent.
Cane sugar.....	2.50 per cent.
Mineral constituents (ash)....	0.95 per cent.
Alcohol, by volume.....	17.50 per cent.

A large proportion of alcohol is required in proteid preparations as a preservative.

Perhaps the appended formulas for simple peptonized foods may afford a base for experimentation toward the desired end:

Peptonized Beef Tea.

Pancreatin	10 grains.
Sodium bicarbonate.....	30 grains.
Lean beef.....	8 ounces.
Water	20 ounces.

Mince the beef and let it simmer with the water in a covered vessel for ninety minutes. Allow the product to cool to 140° F., and add the pancreatin and the sodium bicarbonate previously mixed. Keep the mixture in a warm place (about 100° F.) for a sufficient length of time, shaking occasionally; strain, and boil.

Peptonized Toast Gruel.

Toast crumbs.....	enough.
Water	enough.
Pancreatin	5 grains.
Sodium bicarbonate.....	15 grains.

Boil a sufficient quantity of well-dried toast crumbs (no crust or burned particles) with enough water to make 1 pint of thick gruel after it has been well cooked. Mix with this gruel the pancreatin and the sodium bicarbonate, and set the mixture aside in a jug in a warm place for a sufficient length of time. Then bring the gruel to a boil, let it boil a few minutes, and strain it.

Peptonized Milk.

Fresh milk.....	20 ounces.
Water	5 ounces.
Pancreatin	5 grains.
Sodium bicarbonate.....	15 grains.

Dilute the milk with the water; add the other ingredients; place the container in a water-bath, and keep at a temperature of 110° F. for a sufficient length of time, shaking occasionally. Raise the temperature rapidly until the liquid boils; and allow the product to cool.

In all these processes care must be taken to stop the digestion before the extremely bitter peptones are formed. About two hours is required for complete peptonization, but if the heat is continued for this length of time, the preparation will doubtless be far from palatable.

Gray Powder.—L. G. P., Florida.—This is a synonym for mercury with chalk, as may be seen by an examination of the index of the Pharmacopœia, or the text of any of the commonly used books on pharmacy.

Which Calamine.—A. J. P., New York, wants to know whether, in filling a prescription for "lotio calaminaris," he should use lapis calaminaris or the prepared calamine. He has had a dispute with the prescriber and wants us to settle it.

One of the store maxims of the late Marshall Field, who was, perhaps, the most successful merchant of his time, was, "The customer is always right"; and a good maxim for druggists would be, The physician is always right—or, at least, *nearly* always. If the prescriber of "lotio calaminaris" desires the crude drug used in making the lotion, he is right when he says that that is what he wants; if he wants the prepared drug used, then he is right when he says so. Our present querist does not intimate which one the doctor said he wanted, and so we are left to treat the matter as an abstract principle.

The United States Dispensatory says that "calamine must be impalpable before being used as medicine"—meaning, we take it, that the prepared calamine is the one to be so used, although, of course, the crude could be made impalpable; too. Most of the older books specify the prepared article as the one for use in pharmacy. In the British Pharmaceutical Codex, the only official or quasi-official book of standards in which we find a formula for this lotion, the use of the prepared calamine is directed. In Squire's Pharmacopœias of the London Hospitals, eighth edition, out of twelve formulas for this preparation, four specify "prepared calamine"; five just "calamine"; two "levigated calamine," and one, "native calamine." It has been our experience that physicians generally prefer the prepared article as it is less liable to be gritty than is the native calamine.

If the druggist has inadvertently used the kind that the physician did not wish, he should explain to the latter why he did so, and assure him that it is his desire to supply what is wanted, and that he will always do so when he knows what that is.

Face Enamel.—G. H. G., Pennsylvania.—No one but a trained physician who had specialized in dermatological practice would be able to overcome the condition to which you refer. To do this would require long and careful systemic treatment, general and local. The disguising enamels are usually paints made with a base of bismuth subnitrate or lead carbonate, both of which are well suited to produce and do produce and aggravate the eruptions they are expected to conceal, and both of which are absorbed through the skin to act as cumulative poisons to the general system.

Dermatology is no part of pharmacy. Its practice should be left, on the one hand, to the physician who knows what he is about, and on the other to the "beauty specialist" whose only interest is in the plumpness of her purse.

Orange Manna.—S. W., Colorado.—How this "king of medicines," which is (on the label) "a pure food product containing no drugs of any kind," is made is a secret in the keeping of which we do not share. We opine, however, that its physical and real therapeutical characteristics would be closely simulated by a mixture of bran and glucose flavored with extract of orange and perhaps colored with a little caramel.

One-Solution Black Hair Dye.—W. C. K., Wisconsin, wants to know how to prepare a one-solution black hair dye without the use of salts of silver or lead. There are lots of one-solution black hair dyes containing silver or lead salts, and lots of two-solution black hair dyes that do not contain these salts, but our querist puts such restrictions on us that the number of formulas from which to make a suitable selection is reduced to rather small proportions. He might experiment with this one:

Iron sulphate.....	2 drams.
Glycerin	1 ounce.
Cologne water.....	1 ounce.
Rose water.....	14 ounces.

A solution composed of these ingredients, will, according to the Standard Formulary, if applied to the hair twice daily, gradually darken it.

There are formulas for hair dyes containing synthetic colors, including paraphenylenediamine; any of them may prove injurious to the scalp; the dye named is notably dangerous as it frequently produces serious eruption. It has been found in two proprietary articles which caused trouble, namely, Mrs. Potter's "walnut juice hair stain," and "eau sublime." See the CIRCULAR for December, 1910, page 625. It may be said that, as a rule, all hair dyes injure the hair and skin.

Mentholatum.—C. V. D., District of Columbia.—A few years ago, in reply to a request similar to yours, we said: "We have never analyzed this preparation and do not know what its constituents are, but so long as we are able to procure white petrolatum and menthol and rub them together our ignorance concerning the proprietary article gives us no concern whatever." Later we added that if a stiffer ointment is wanted than results from this mixture, a little paraffin might be incorporated.

Seeing the notes mentioned, a reader of the CIRCULAR sent us a formula for a preparation of this nature, which follows:

Camphor	20 grains.
Menthol	30 grains.
Thymol	10 grains.
Boric acid.....	15 grains.
White wax.....	2 drams.
White petrolatum.....	enough to make 8 drams.

Platt's Chlorides and Vermin Killers.—M. B. S., Virginia.—Reports of some analyses of Platt's chlorides appear in the CIRCULAR for August, 1910, page 422, together with a bit of information as to the low rank as disinfectants of the chemicals which are said to be its principal ingredients. While it can not be said that even low-power disinfectants do actual harm, their use may result in evil by establishing a sense of false security.

Just why a vermicide should be used in conjunction with this or any other preparation of chlorides—that is, mixed with it—we do not see. Formulas for good vermicides abound in the CIRCULAR, several having appeared in the issues for this year. We do not know that the preparation made according to any of these formulas would be improved by the addition of a solution of chlorides, and we strongly suspect that quite the contrary would be the case.

Prescription Record.—G. S. M., New York, requests a "suggestion for a convenient and economical prescription record, especially adapted to a large prescription business." By "record" we assume that our querist means a filing system, as the prescriptions, properly tagged and filed, constitute the best and only complete record of themselves, although we have heard of records kept by druggists to show the number of prescriptions received by them from each physician during the month, and the amount received for filling the same. Such a record may be kept in a book properly ruled, the entries being made somewhat in this manner:

	Dr. Jones.	Dr. Smith.	Dr. Brown.	Total.
Jan.	75 \$40.50	106 \$52.75	41 \$25.00	222 \$118.25
Feb.				
Mar.				
etc.				
Total				

Then there is such a thing as a daily card index showing the number of the prescriptions, the name and address of the patient, the name of the doctor, the price, the shape in which the medicine was dispensed (pills, liquids, etc.), and any additional data which the druggist may wish.

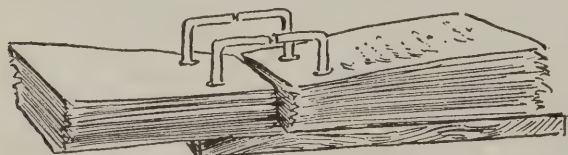
Such records, however, are independent of and do not take the place of prescription files. We believe the old-fashioned way of pasting the prescriptions in large books made for that purpose is still in vogue in the majority of stores, but improvements on this method, as well as entirely new plans, have been proposed from time to time and adopted by many.

Card index systems very readily lend themselves to the filing of prescriptions, or for keeping a record of prescriptions filled. Some druggists find very convenient the use of cards somewhat larger than the usual prescription blank, to which they paste the prescription when it is filled, and on the extra space record the name and addresses of the patient, the name of the doctor, the price, the manner of filling, and, of course, the date and number of the prescription. These cards are filed in the usual filing cabinets, with index cards for every one hundred, or for every week or month, and, when the cabinet drawers are full, are transferred to boxes and stored away on shelves. A detailed description of such a system appears in the CIRCULAR for October, 1906, page 352.

A variation of this system consists of pasting the prescription on ledger paper, punching holes in the paper with the ordinary bill-file puncher, and fastening the sheets together by means of McGill's fasteners. These fasteners are the kind that consist of a narrow strip of brass so bent in the middle as to form a head, while the ends of the strip may be bent to hold the papers filed. The leaves may be made large enough to hold two or four prescriptions, and the latter should be pasted on these leaves, and filed, at the end of each day's work. To mark each hundredth prescription an index leaf of a different color may be used. For backs to "books" so made, cloth-covered card-board is suitable, the cloth permitting the bending back of the covers without severing them. These books may be made as large as convenient, as the fasteners come in different lengths, and filed away in any convenient manner, duly labeled on the outside, of course. The latest book in daily use should be kept to small dimensions, while the permanent files may be made larger.

Here is another plan: Buy at a hardware store a

few dozen screw hooks bent at right angles. Screw a pair of them into a suitable piece of board at just the right distance apart to receive a prescription perforated by the ordinary bill-file perforator; and alongside of these screw another pair so that the ends of the two hooks of the first pair will just touch the ends of the two hooks of the last pair, forming a file which will permit the turning up to view of any prescription, or by a slight turn of two of the hooks, its removal from the file. When the file is full, it may be properly labeled and stored away in a suitable box.



A Home-Made Prescription File and Cabinet.

The illustration herewith was drawn by A. B. Burrows for the *Bulletin of Pharmacy*.

While it is often a great convenience to be able to remove a prescription from the file, it is anything else but convenient when one wishes to find the prescription again, to discover that it has not been returned to its proper place. So, some prefer books and others loose files.

To prevent the tearing of prescriptions, bits of tough paper or even of cloth or court plaster may be stuck to them at the places where the perforations are made.

We should welcome suggestions as to filing systems which may be considered improvements on the ones we have described.

Tooth Powder Formula.—S. A. C., New Jersey. —We do not know the formula for the tooth powder you name, but are not worrying about our ignorance, as after examining the powder we conclude that it is a rather commonplace one whose equal or superior is to be found among the "own-make" goods on the shelves of hundreds of drug stores.

Suppose you experiment a little on your own account, using as a basis—

Precipitated chalk.....	1 ounce.
Powdered soap.....	1 dram.
Thymol	5 grains.
Oil of gaultheria.....	2 drops.

In the course of your experiments you might introduce a little orris, starch or other ingredient.

"Misting" of Eyeglasses.—The Texas Drug Company, Illinois, referring to a note in the CIRCULAR for last month, page 140, writes that rubbing castile soap on eyeglasses, and polishing with a silk handkerchief will prevent the condensation of moisture on them.

For this note and for all other helps for use in this department or elsewhere we are truly grateful.

Preventing Fermentation.—S. W. H., California. —There are several factors which must be taken into consideration in determining the amount of a preservative that will be required to prevent the fermentation of "an aqueous, saccharine fluid, weak in sugar." First to be considered is the composition of the fluid. If a fluid contains yeast, gum, citric acid or fruit juice it is much more likely to ferment than is a simple solution of sugar in water. On the other hand, the presence of certain chemicals, spices, or aromatic oils will render the fluid less prone to fermentation.

The second factor to be considered is the degree of cleanliness attending the preparation of the fluid. In fact, cleanliness might well be placed first. If the water used has been sterilized, if the sugar is all sugar and clean, if the utensils are aseptic and the containers are in the same condition, if containers and contents are heated before closing to about 80° C. for half an hour, and if the packages are closed with stoppers free from micro-organisms, there will be little if any need for a preservative in the finished product.

However, if the composition of the preparation or some other factor makes the aforementioned conditions impossible, a general knowledge of the inhibitory or antiseptic strength of the preservatives less harmful to the human organism will stand the maker of "aqueous, saccharine fluids" in good stead. According to Flügge salicylic acid will prevent bacterial action when present to the extent of 1 part in 1500; except under conditions unusually conducive to the action of enzymes, ordinary saccharine fermentation may be prevented by a smaller proportion of the acid, and we know from experience that the acetic acid fermentation of apple cider is prevented by 1 part of the acid in about 3500 parts of cider. Flügge gives 1 to 1000 as the antiseptic strength of benzoic acid; this is the same as the much talked of one-tenth of one per cent. in which strength it is claimed sodium benzoate is effective as an antiferment. Alcohol is generally over-rated as a preservative. Its germicidal action is practically nil, and to exert even a mild antiseptic influence it must be present to the extent of at least 10 per cent. Glycerin is not a good antiseptic; in fact a small proportion of glycerin is favorable to the growth of some bacteria. When present to the extent of at least 25 per cent. glycerin hinders but does not stop putrefactive decomposition. The real value in glycerin lies in the fact that it does not ferment and is generally used to replace sugar syrup, which does.

A syrup preserved by the addition of antiseptics is not to be commended for use in food or drink, or in medicine.

A Good Bay Rum Formula.—Frank T. Gillespie, Michigan, feels enough gratitude to write the following note:

Your request in the February CIRCULAR, page 82, for six different druggists to try the formula of F. W. Scott, Jr., New York, for bay rum, and report results, will probably be answered by that many hundred, and if that number tries it, so much the better. The writer has made some bay rum according to that formula and found it excellent—just what he has been looking for. Success to Mr. Scott and the CIRCULAR!

On page 183 of this issue is an article on bay rum by F. T. Gordon, who, as a United States naval pharmacist, has seen a good deal of the work, including the island of St. Thomas.

Electrolytic Rectifier.—L. G. Smith, North Carolina, writes:

In reply to the appeal to readers for information for "M. S., Illinois," relative to a rectifier for changing alternating current to direct, I advise you that much information on the subject may be had by consulting the following electrical magazines: *Popular Electricity* for August, 1909, page 235, and for February, 1910, page 678; and *Electrician and Mechanic* for January, 1911, page 7.

This information is given with the assumption that a rectifier of the chemical, or electrolytic, type is wanted. By reference to the publications above referred to, this type of rectifier may be easily made at home at a cost of about \$3.

The mercury arc rectifier is much more efficient than the chemical, but the original cost is many times greater; this type may be purchased in the market.

Current after being rectified is reduced about 30 in voltage and is of a pulsating character; this reduction is on a basis of 110-volt supply.

The article first cited by Mr. Smith was by H. L. Transtrom, who directed the following procedure:

Procure four glass jars; those used for ordinary wet-cell batteries are well adapted for this purpose, although any glass, rubber or porcelain jar will do. Cut four disks of dry birch wood to fit loosely in the tops of the jars, and four more disks 4 inches in diameter by $\frac{1}{2}$ inch thick. Screw the latter fast to the smaller disks to form covers for the jars.

Cut a 1-inch lead pipe into four 6-inch lengths and cut out of each with a hacksaw enough to permit bending one end together in such a manner that a long machine screw can be passed through it to a binding post on top of the cover.

Cut four rectangles of soft aluminum 5 by 6 inches by $\frac{1}{8}$ inch thick, with a projection $\frac{3}{4}$ inch long and $\frac{1}{2}$ inch wide on one of the longer sides; this is to be bent over at right angles. Screw these plates fast to the $\frac{1}{2}$ inch disk, concentrically with the lead pipe, and countersink the projection into the wood so that it is flush with the under side of the cover disk. Bore a hole through the projection and the disk and fasten a machine screw through it to the binding post.

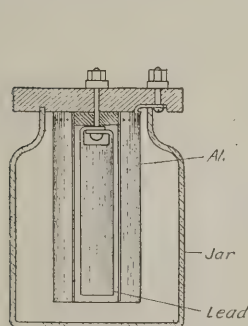


Figure 1.
Section of Completed
Cell.

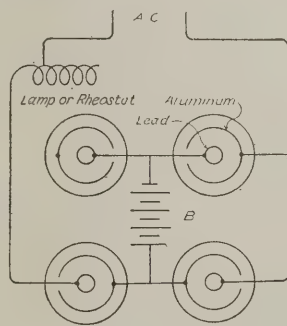


Figure 2.
Manner of Connecting
Cells for Use.

When the four cells (figure 1) are complete, fill a large jar with enough cold water to fill the four smaller jars about three-quarters full. Into the cold water pour one pound of pure ammonium phosphate and stir until it is all dissolved. Put an equal quantity of this solution in each jar.

The rectifier is now complete, but it remains to be connected up properly as shown in figure 2. A rheostat should be used in series with the alternating current and the rectifier. For purposes requiring little current a 16-candle-power lamp can be used as a rheostat.

D. P. Morrison, in the February, 1910, issue of *Popular Electricity*, gives instructions for making an electrolytic rectifier that will deliver a direct current of 3 to 6 amperes at 15 to 25 volts from an alternating current reduced to about 30 volts by a rheostat. This apparatus consists of four cells made in much the same manner as those described above with the excep-

tion that a carbon rod or plate replaces the lead pipe. The electrolyte to be used is a solution of sodium phosphate acidulated with sulphuric acid. The jars are filled with a saturated solution of sodium phosphate to within 1 inch of the top, then, assuming that the alternate current voltage is 30, sulphuric acid is added to each jar until the direct current measures 5 amperes on a full load. This rectifier is connected up for use in the manner shown in figure 2.

T. C. Stanleigh is the author of the article in *Electrician and Mechanic*. Each cell in his apparatus contains two lead plates and one aluminum plate. For use with a low-voltage transformer current of 25 volts or less the jars are to be filled with diluted sulphuric acid. With a 110-volt current the jars should be filled with a saturated aqueous solution of sodium bicarbonate, or sodium borate. For a 220-volt current a saturated solution of ammonium phosphate is the best electrolyte.

In using a rectifier with a high-voltage current care must be taken to prevent the full force of the flow at the start by interposing a rheostat or other resistance.

When a 4-cell rectifier is delivering a current of more than 5 amperes it will become heated resulting in a falling off in efficiency. To obviate this, Mr. Morrison suggests passing a current of cold water through a coil of glass tubing immersed in the electrolyte.

Bovine.—"Inquisitive," Pennsylvania.—As we have said in regard to the making of chewing gum and several other things, something more than a mere formula is needed by the man who would engage in manufacturing certain preparations, the "formula," indeed, sinking to a place of secondary importance as compared with knowledge and skill of the manipulator, born of experience, and factory equipment. The proprietors of bovine supply a very simple formula for it, but whether a druggist can take this formula and turn out a successful preparation, is quite another matter. The formula follows:

Defibrinated bullock's blood.....	65 per cent.
Desiccated egg albumin.....	19 per cent.
Bourbon whisky.....	10 per cent.
Pure glycerin.....	5 per cent.
Boric acid.....	1 per cent.

Atropine in Oil.—R. J. W., New York, has been asked to make a solution of atropine sulphate in olive oil, 4 grains to the ounce, but finds that the salt does not dissolve in the medium to that extent, and asks for help.

If a solid will not dissolve in a liquid, hot or cold, there is no way to make it do so; but sometimes the solid or the liquid may be changed without interfering with the therapeutic results which the prescriber of the combination had in mind. In this case perhaps the best thing to do is to suggest to the physician that an equivalent quantity of the alkaloid be used, instead of the salt, as atropine may be dissolved in olive oil by the use of a gentle heat.

Pepsin Chewing Gum.—S. W., Colorado.—Some suggestions and formulas for making chewing gum appear in the *Circular* for February, page 83. During the process of manufacture, pepsin may be incorporated in gums made according to these formulas, in any desired proportion.

Sour Milk and Longevity.—J. E. F., Massachusetts.—Dr. Elie Metchnikoff, a European savant, after a study of the effect of sour milk on the human organism, concluded that a certain milk bacillus, which he speaks of as the Bulgarian bacillus, has a beneficent influence on the intestinal fluids of those who take it into their systems. This bacillus, he believes, tends to retard that hardening of the arteries which is largely responsible for many of the ills of old age, if not for the ill of old age itself.

From a recent article on the subject by Dr. Metchnikoff, appearing in the *New York Times*, we quote:

This fermentation in our digestive intestines may be responsible not only for diseases of the digestive apparatus, but it is also the source of poisoning the organism.

Several years ago I suggested to combat the process of fermentation in the digestive organ and its injurious consequences by the aid of milk ferments. I supposed that the acid produced by these microbes would be effectual in hindering the multiplication of the ferment-producing microbes.

I saw clearly all the difficulties connected with the effort of introducing the new milk microbes into the intestinal flora, which is already occupied by numerous other microbes. To secure the most certain result, I selected a milk microbe which is the strongest acid producer. It is of Bulgarian origin, and is to be found in sour milk in the Balkan States and even in the Don region in Russia.

To prove the effect of the milk microbes it was necessary to take them for a long time daily—for weeks and months—so I used only the pure culture of such microbes. Yagurt, as well as kephir, koumiss, and other various sorts of sour milk, which are for sale, had to be excluded, in view of the fact that these products contain other microbes, some of which are injurious to the human body.

Pure cultures of milk microbes may be prepared either in sterilized or simply boiled milk, or in various bouillons containing some sugary ingredients.

These cultures should be taken in the form of sour milk, or bouillon—this is better than to take them in a more or less dried form. Although the milk bacilli live also in such a form, it is harder for them to multiply and resist the struggle against the microbes which are already accustomed to living in the intestines.

It should be remembered that milk microbes, especially the best of them, such as the Bulgarian bacilli, are not easily adapted to our digestive apparatus. For this they need sugary substances which are not to be found in the remote regions of our digestive apparatus.

Of all foodstuffs used by man, only dates (as our collaborator Alberto Bertello proved by his investigations) are capable of bringing such sugary substances into those regions of the digestive apparatus. Having established the fact that dates constitute a very wholesome food, which may be seen from the long experience of some Arabian nations, we decided to prepare these fruits with pure cultures of Bulgarian bacilli in the form of very tasty candy.

Unfortunately difficulties were encountered which made it impossible to prepare these candies for the public at a low price. As there is as yet no way in which to make them more accessible to the public, one may content himself with using cakes prepared with live and quite active Bulgarian bacilli, adding some good dates to the mixture.

After several years of use, milk ferments have made for themselves a solid place in therapeutics. In certain countries physicians have tried successfully to use them in curing intestinal diseases.

The facts we have gathered show that milk bacilli can hinder the activity of typhoid and other bacilli.

The purpose we are pursuing in our investigations is to transform our intestinal flora from a so-called wild state, which is inhabited by injurious microbes, to one that should be cultivated and beneficial to our health.

The facts I have gathered prove that this aim is not at all a dream. It is but necessary to recall that dangerous typhoid bacilli can be driven out and replaced by the Bulgarian bacillus. It is indisputable that this is only the first step in the series of experiments which should be made in the effort to disarm the danger threatened to us by the intestinal microbes. I am willing to admit that the remedies recommended thus far are quite imperfect.

There is still a great deal to be done. The present meth-

ods are but of a preliminary nature. Recently failures were cited among cases of treatment of intestinal diseases by the aid of milk bacilli. I am convinced that a considerable portion of these failures was due to the poor quality of the preparations used. Through commercial motives, some manufacturers of milk ferments prepare them in pressed form, which cannot be recommended, as in such form the bacilli are in a state of insufficient activity.

Analyzing these products, I very often found instead of the Bulgarian bacillus other bacilli of entirely different forms, sometimes injurious. No wonder that such preparations are more harmful than useful.

I believe that it would be proper to subject the preparation of milk ferments by the pharmaceutical industry to the same control to which the preparation of antitoxin serums is subjected. I believe that under such conditions the treatment by the aid of milk bacilli would yield better results.

Having no patients on whom I could make systematic observations, I turned to myself. For many years my health left much to be desired. Having applied unsuccessfully various forms of treatment, I turned to my own method, and I consider the results satisfactory.

I discontinued the use of all drinks containing alcohol, and also the use of all raw foods. I drink only boiled water and boiled milk or very weak tea. As food I take every day a small quantity of meat, and especially carbohydrate stuffs, cooked vegetables, and stewed fruits. To this regimen I add from one to two pots of sour milk, prepared with paralactic bacilli, and also a small cake containing the Bulgarian bacilli, which I eat with jam. Besides this, I eat as many dates as I can containing Bulgarian bacilli, or simply cooked in boiling water.

This regimen I have kept up only recently. But for twelve years I have not used any raw fruits or raw vegetables, and have taken milk ferments in sour milk.

With the introduction of such a regimen my health has improved to such an extent that notwithstanding my sixty-five years I can do a great deal of work. I come of a family in which longevity was unknown (all my brothers dying much younger than I am now), and I consider that I owe this happy result to my regimen. There will be nothing surprising if my active life will stop very soon, for I did not commence to follow this rational regimen until I was already fifty-three years old, having done before that everything that could break down my health. I advise young people who wish to attain a healthy old age to commence this regimen as soon as possible.

Now we come to the question which is often debated in connection with the use of milk microbes, namely, the question of longevity.

In none of my works on this subject—notwithstanding the statements put into my mouth by certain journalists—did I ever declare that sour milk can prolong human life. I developed the thesis that in our premature senility the intestinal microbes must play an important role, and I proposed the use of milk microbes for the purpose of changing the flora and diminishing fermentation in the intestines.

As some of the poisons in the digestive organs act upon the arteries and cause arterio-sclerosis, one of the main symptoms of premature old age, there is nothing surprising in the supposition that the agents which hinder the activity of such poisons can slacken the premature feebleness of our organs. And as milk microbes occupy the first place among these agents, we have a right to suppose that they must exert a favorable influence in the sense of longevity. But it is still necessary to gather many facts to make this supposition an invincible reality.

Notes on this subject appear also in the issues of the CIRCULAR for April, 1910, page 164; and January, 1908, page 27.

Emulsion of Paraldehyde.—Senega is suggested in the *Prescriber* as a good emulsifying agent for paraldehyde. The following formula for an eligible preparation is offered by that authority:

Paraldehyde	4.0 c.c. (mils).
Syrup	6.0 c.c. (mils).
Tincture of orange.....	0.6 c.c. (mil).
Infusion of senega.....	12.0 c.c. (mils).
Water.....	enough to make 30.0 c.c (mils).

Moxie.—I. E., New York.—We do not know how this beverage is made, or what percentage of alcohol it contains, but have seen a statement to the effect that it was prepared from oats (*avena sativa*) and flavored with sassafras and wintergreen; although it is claimed by the manufacturers that it comes from a South American cane.

In expressing his opinion upon "valid evidence" and similar topics during the suit of the Moxie company versus the Modox company, Judge Brown in the United States circuit court, at Providence, R. I., had this to say a few years ago about the mystical origin of the name occasioning this contest: "The evidence raises serious doubts as to Lieut. Moxie, the discoverer. The existence of Lieut. Moxie can hardly be regarded as a trade secret. No one but Dr. Thompson seems to have known about him, so far as this record discloses. But wherever Dr. Thompson may have found the name 'Moxie,' there remains a strong suspicion that Lieut. Moxie got his name from Dr. Thompson."

Several years ago we printed a formula for a preparation said to resemble moxie, which is as follows:

Oil of sassafras.....	15 minims.
Oil of wintergreen.....	15 minims.
Alcohol	1 ounce.
Fluidextract of gentian.....	1 ounce.
Compound syrup of sarsaparilla....	8 ounces.
Caramel	1 ounce.
Syrup.....	enough to make 5 pints.

Onion Syrup.—J. M. C., Montana.—This may be made just as syrups of other "fruits" are, by slicing or contusing the bulbs and placing them in a suitable vessel, preferably one with an outlet at its bottom, alternating layers of onions with layers of sugar, and setting the vessel aside in a warm place. As to just how stable a syrup so made would be, we are unable to say, but believe that it would keep as well as one made in any other manner. As to its palatability—well, there is no accounting for tastes.

An artificial onion syrup may be made by the use of oil of garlic—natural or synthetic. This leaves nothing to be desired in the way of strength—except a lack of it.

A formula for syrup of garlic, adaptable to the making of a syrup of onion, was given in the *Pharmacopœia* of 1890, and may now be found in the appendix of the National Formulary.

We are glad to be able to say that the demand for flavor of this kind is so small that we believe we have not been called upon to supply information on the subject since the appearance of a note on "Extract of Onion" in the *CIRCULAR* for June, 1904, page 132.

Orrine Liquor Habit Cure.—F. X. D., Illinois.—We have learned nothing new about this preparation since the publication of our note on the subject in the *CIRCULAR* for May, 1910, page 235, in which we said that we did not know its composition but that it was said to contain a minute amount of a mercury salt as its active constituent. Orrine is mentioned in the "Great American Fraud" series in *Collier's Weekly* for September 22d, 1906. A note on various treatments for the liquor habit, with formulas, appears in the *CIRCULAR* for July, 1907, page 473; and one on the "fake" character of the advertised liquor-habit-cures is given in the issue for March, 1908, page 126.

An Exercise in Polypharmacy.—P. D. H., Pennsylvania, writes: "Please publish in your next issue how you would compound the enclosed prescription. Everything on the front and back of the blank was placed there by the doctor when given to the patient. What should be the color? and would there be any precipitate? The doctor will not permit any change in or any addition to the formula."

The prescription reads—

R	Urotropin	3ij.
	Caffein <i>Alk.</i>	3j.
	Pilocarp Mur.....	gr j.
	Nitroglycerin [sic].....	3j.
	Hydrarg Chlor Corros.....	gr ij.
	Mist. Basham's q. s.....	℥iv.

M et Sig—3j every 3 hours.

Dr. ———

Warm and filter to make clear solution.

On the reverse side were these directions:

Compound this prescription carefully, only heat until solution is formed; then filter while in solution, keep in warm place until filtered.

We did just about all that the doctor ordered except that we used 1 dram of solution of nitroglycerin instead of the explosive seemingly prescribed, as the nitroglycerin itself not only is not a medicine, but could be handled only with extreme risk; and the dosage of the solution corresponds to the quantity prescribed; if the "crude" were used, the quantity given would be enormously in excess. The resulting preparation was a clear cherry-red solution—for a few minutes. Then it became a white feathery mass of needle-like crystals. This was doubtless due to the precipitation of the caffeine by the mercuric chloride, the influence of this salt on alkaloids in solution being well known. One would also expect the mercuric chloride to precipitate the pilocarpine and also the urotropin. This last-named substance is rather an unknown quantity, but its official analogue is precipitated by the mercuric salt.

Because urotropin is decomposed by hot water, we compounded the mixture as follows: We made the Basham's mixture up to the point of adding the required amount of water. In this solution we dissolved the caffeine with the aid of a gentle heat. The urotropin and the pilocarpine hydrochloride we dissolved in about 3 drams of cold water and the mercuric chloride in a few drops of hot water. When the iron-caffeine solution had cooled a little we added the urotropin solution, then the solution of nitroglycerin, and lastly the solution of the mercuric chloride. In any case a dangerous precipitate is likely to occur.

Glycerite of Heroine.—C. O. H., Illinois.—Our knowledge of the composition and mode of preparation of *glyco-heroin* is limited to the statement which has appeared in the *CIRCULAR* a number of times to the effect that it is said to contain ½ grain of heroine hydrochloride to the ounce, combined with glycerin, balsam of tolu, white pine bark and ammonium hypophosphite, colored with caramel, and 3 per cent. of alcohol. It is not a difficult pharmaceutical operation, however, to prepare a glycerinated syrup containing the ingredients you mention. How this would compare with the preparation in question is of no importance if the therapeutic results are as you wish.

Directions for making a somewhat similar preparation, for use in veterinary practice, appear in the *CIRCULAR* for January, 1908, page 27.

Compound Solution of Resorcinol.—L. A., Pennsylvanica.—We know of no "recognized compound solution of resorcin"; neither have we any knowledge of a solution containing resorcinol and sodium thio-sulphate. The following preparation recognized in the British Pharmaceutical Codex might be called a compound solution of resorcin:

Spirit of Resorcin B. P. C.

Resorcinol	2.5 grammes.
Castor oil.....	2.5 c.c. (mils).
Cologne spirit.....	20.0 c.c. (mils).
Alcohol, enough to make....	100.0 c.c. (mils):

We should be glad to pass along any information our readers may have relative to a preparation with the name mentioned by our querist.

Pricing Prescriptions.—J. E., New York, wants particulars as to the tables of prescription prices referred to in an issue of the CIRCULAR a few years ago as having been compiled by Prof. Ruddiman and by the National Association of Retail Druggists.

Ruddiman, in his work on Incompatibilities in Prescriptions, gives the following table showing the "average of prices charged in the various sections of the United States for prescriptions not requiring extraordinary skill or calling for any very expensive ingredients:

Liquids.		Powders, Capsules, or Pills.	
1 ounce.....	20 to 25 cents.	1 to 4.....	15 to 25 cents.
2 ounces.....	30 to 35 cents.	5 to 6.....	25 to 30 cents.
3 ounces.....	35 to 40 cents.	8.....	30 to 35 cents.
4 ounces.....	40 to 50 cents.	10.....	35 to 40 cents.
6 ounces.....	60 to 65 cents.	12.....	40 cents.
8 ounces.....	75 cents.	24.....	50 to 75 cents.
Ointments.		Suppositories.	
½ ounce.....	25 cents.	½ dozen.....	40 to 50 cents.
1 ounce.....	30 to 35 cents.	1 dozen.....	75 to 100 cents.
2 ounces.....	40 to 50 cents.		

Below is a copy of a leaflet issued from N. A. R. D. headquarters:

The N. A. R. D. Prescription Pricing Schedule.

The Figures Are Compounding Fees Only.

Liquid Prescriptions: Minimum charge, 25 cents. All simple or compound mixtures, internal or external, dry or liquid, eye or private disease remedies, and veterinary.

Quantity.	Dose.	Dose.	Dose.	Dose.	Gargle and External only.
	1-5 M.	10-25 M.	dr. ss-dr. i.	dr. ii-oz. i.	
½ oz.	.25	.20	.15	.10	.10
1 oz.	.35	.30	.20	.15	.10
2 oz.	.45	.35	.25	.20	.15
3 oz.	..	.40	.30	.25	.20
4 oz.	..	..	.35	.30	.25
6 oz.	..	..	.40	.35	.30
8 oz.	..	..	.45	.40	.35
12 oz.	..	..	.55	.45	.40
16 oz.	..	..	.60	.55	.50
32 oz.	..	..	.75	.70	.65

Proprietaries: Original package, regular retail price. When costing over \$2, \$4 or \$8 per dozen, add 65 per cent. to cost. When transferred to new container, add 15 per cent. to regular retail price. When part of package is dispensed, double cost of amount used and add charge for container (see below).

Dry and Fatty Prescriptions: Minimum charge, 15 cents. These figures are compounding fees only.

Pills, Powders, Capsules, Wafers, Etc.: 4, 10 cents; 6, 15 cents; 8, 20 cents; 10, 25 cents; 12, 30 cents; 15, 35 cents; 20, 40 cents; 24, 45 cents; 30, 50 cents; 40, 60 cents; 50, 70 cents; 60, 80 cents; then every additional 10 up to 100, 5 cents. After that 10 cents for every additional 25.

Proprietaries costing 20 cents per 100 or less, 10 cents per dozen and 10 cents for labeling and package. Costing over 20 cents per 100, 15 cents per dozen and 10 cents for labeling and package; with those exceptions

as noted in the N. A. R. D. Price List. (A copy of which will be mailed to members for 25 cents. The price to non-members is 50 cents.)

Ointments and Cerates: ½ ounce, 20 cents; 1 ounce, 25 cents; 2 ounces, 35 cents; 3 ounces, 45 cents; 4 ounces, 55 cents; 6 ounces, 65 cents; 8 ounces, 75 cents; 16 ounces, \$1.

Suppositories, Bougies, Etc.: 1, 10 cents; 2, 20 cents; 3, 30 cents; 4, 40 cents; 5, 45 cents; 6, 50 cents; 8, 60 cents; 10, 65 cents; 12, 75 cents; 15, 90 cents; 18, \$1.05; 20, \$1.20; 24, \$1.35; 30, \$1.60; 36, \$1.80.

Containers: Pill and powder boxes, 5 cents; ointment boxes, 5 cents; ointment jars, 1 ounce, 5 cents; 2 to 4 ounces, 10 cents; 8 ounces, 15 cents; bottles, 8 ounces or less, 5 cents; 10 to 16 ounces, 10 cents; 32 ounces, 15 cents; ½ gallon, 20 cents; 1 gallon, 25 cents; glass stoppered bottles, three times the price of plain bottles.

Veterinary: Charge same as for other prescriptions.

Household Remedies, Mixtures, Etc.: Add regular retail price of ingredients (none less than 5 cents) and charge for container. If any compounding is necessary, charge at rate of \$1.50 per hour.

Marking Price on Prescriptions.

If a prescription or copy leave your store, mark it with N. A. R. D. price, as follows:

P H A R M O C I S T
1 2 3 4 5 6 7 8 9 0

Admissible Changes: If customer is poor, add a star (*) to price mark, showing you have gone below schedule price. If your present prices are lower than above, raise them gradually to schedule prices.

Important How to Fix Price: The price of the prescription is the compounding fee, + the cost of the container, + twice the cost of the material. (Exception: When the cost of material is over \$1, multiply cost by 1½ instead of 2.) These prices are based on an approximate \$1.50 per hour scale.

Soap Bubble Liquid.—E. B. B., New York.—Below we present a collection of formulas and suggestions for those who would experiment with soap bubbles:

I.

Castile soap.....	2 ounces.
Mucilage of acacia.....	2 drams.
Glycerin	4 ounces.
Water.....	enough to make 1 pint.

This should be diluted for use.

II.

Powdered castile soap.....	300 grains.
Granulated sugar.....	300 grains.
Soft, pure, warm water.....	2 pints.

Dissolve the soap in the warm water, set aside for twenty-four hours, decant to get rid of any sediment and add the sugar.

III.

Castile soap.....	3 drams.
Boiling water.....	1 pint.
Glycerin	2 ounces.

Proceed as in the above.

It is said that palm oil soap is superior to castile soap for making soap bubbles, and we have also heard that waterglass added to the suds from which the bubbles are blown, will make the latter tough.

Soap Bubble Flowers.

To make soap bubble flowers, bend a piece of copper wire into the shape of the flower, dip it into the soap bubble liquid, and place it under a glass jar. Behind the jar, set near a window, place a black background, against which the flower appears in changing colors as the light is reflected and refracted by the bubble film.

Yellowishness of "Lotio Alba."—J. L. A., Pennsylvania.—So indefinite is the composition of sulphurated potassa that its behavior when combined with zinc sulphate, as in the making of the popular "white wash," is liable to be quite uncertain. Sometimes "liver of sulphur" is a mixture of potassium trisulphide and potassium thiosulphate; if prepared at a higher temperature the mass consists principally of potassium trisulphide and potassium sulphate. In both products a little potassium carbonate and more or less sulphur are generally present.

In direct ratio to the proportion of combined sulphur present in sulphurated potassa is the depth of the color of aqueous solutions of the compound and the amount of free sulphur formed when the sulphurated potassa is decomposed. As this free sulphur will not combine with the other decomposition products formed in "lotio alba," upon the proportion of sulphur present depends largely the color of the precipitate in the "wash." Obviously if the yellowness is due to sulphur it can not be gotten rid of and can be obviated only by the use of sulphurated potassa containing no thiosulphate. A yellow tint may be imparted to the precipitate by iron or copper sulphide, salts of these two metals often being present as impurities in zinc sulphate. The yellow color of the "wash" may be in the liquid and not in the precipitate. In this case the addition of more zinc sulphate will usually rectify matters.

To avoid an undue amount of odor of hydrogen sulphide it is well to dissolve the sulphurated potassa and the zinc sulphate separately in portions of the water and filter the solutions through cotton or asbestos fiber before mixing them.

Father John's Medicine.—In a note on this subject in the CIRCULAR for last month, page 142, we said that it looked as if it were up to some old Boston druggist to supply a copy of the doctor's prescription in question. F. E. Dudman, at present of South Carolina, but for twenty-two years a druggist in Boston and Lynn, now writes:

The fact that "Father John's" is merely "Hyneman's black bottle" is generally conceded and I send you an old formula for the same by which I have made many gallons of this famous old emulsion. It is—

Cod liver oil.....	10 ounces.
Extract of glycyrrhiza.....	2½ drams.
Confection of almond.....	1 dram.
Spirit of peppermint.....	4 drams.
Compound tincture of lavender.....	4 drams.
Syrup of tolu.....	4½ ounces.

Make an emulsion.

We thank this "old Boston druggist," even if he is an "ex-," and again extend to all our readers an invitation to send in their practical notes and formulas whenever they have any to offer which they think would be of general interest.

Re-Silvering Mirrors.—F. R. S., Iowa.—A note on this subject, with formulas, may be seen in the CIRCULAR for March, 1907, page 267, and other articles along the same line appear in earlier issues. As few pharmacists are interested in the matter except from an academic standpoint, as no one without proper equipment and a considerable amount of experience should expect to turn out a satisfactory job of this kind, we think we should hardly be justified in taking the space to repeat these notes here.

Compound Phospho-Muriate of Quinine.—A. A., New Jersey.—We do not know anything more about the composition of the proprietary article you mention than is told on its label. According to that, each dram of the preparation contains—

Free phosphoric acid.....	2 minims.
Potassium phosphate.....	2¼ grains.
Magnesium phosphate.....	2¼ grains.
Calcium phosphate.....	2¼ grains.
Ferric phosphate.....	2¼ grains.
The equivalent, in "muriate," of quinine bi-sulphate.....	½ grain.
Strychnine	1/120 grain.
Flavoring and syrup.....	enough.

Amount of Cocaine Used in the United States.—L. L., New York.—Using the custom house reports as a basis of calculation, it is estimated that the amount of cocaine used in this country is in the neighborhood of 120,000 ounces annually. It is known, however, that much cocaine is smuggled into the country, there having been a conviction for this offense in this city only last month. The world's consumption of cocaine has been estimated at 12,000 kilos (about 423,300 ounces) per annum.

Danger of Repeating Serum Injections.—C. I., Michigan.—As your query is a medical rather than a pharmaceutical one, and yet of general interest to pharmacists, we have asked a physician who has made a special study of the question raised therein to answer it. This physician is Dr. R. G. Eccles, and his answer follows:

In reply to your correspondent who asks if it is true that antistreptococcic serum can be used only once, in the same individual, for blood poisoning, and if so why, I would say that it is not advisable to use any kind of alien serum more than once unless there are indications that the first injection was too small, and then the second injection should quickly succeed the first, say within twenty-four hours. The very remarkable fact has been discovered that all alien proteins (formerly called albumins) from every source—plant, animal, bacterium, or protozoon—if injected into a human being or an animal twice, and the second injection is given in from eight days to fourteen days of the first, may prove fatal in exceedingly minute amounts. The white of egg, three times crystallized to make its purity and freedom from all kinds of poisons absolutely certain, has repeatedly and promptly killed rabbits and guinea pigs. So deadly is egg-white, when administered in this way, that *one-fifty-thousandth of a cubic centimeter of a solution containing but one-millionth of a gramme of protein produced death.* (See the *Journal of Infective Diseases*, for October 20th, 1908, page 455).

Meat, milk, serums of many kinds, the proteins of wheat, corn, beans, peas, nuts, etc., etc., are all as deadly as disease when injected in the way mentioned. They do not kill as strychnine or aconite would—at a first injection—but neither strychnine nor arsenic is a circumstance in its deadliness compared with these common articles of food after our cells are sensitized to them. Given the so-called time of incubation—the eight to twelve days—and they produce fever, skin eruptions, malaise, fatigue, shortness of breath, and other of the many common signs of ordinary diseases, in minimal doses, and death in slightly larger ones. None of them seems to do any particular harm at the first dose. It is the second injection that is the serious one, producing what is technically known as anaphylaxis, and it is not serious under about eight days. Where there is an idiosyncrasy to one or other of the proteins named, the first injections are usually serious, for the patient has, somehow, become sensitized in advance. Herbivorous animals can be sensitized to meats, eggs, etc., by way of the stomach, but carnivorous animals are immune to such foods taken by that route. Carnivorous animals are capable of being sensitized to plant proteins by way of the stomach, but animal proteins do not

readily affect them through this channel. The herbivorous animal digests all plant proteins *completely*, but fails to do so by large quantities of animal proteins. The carnivorous animal digests all animal proteins *completely*, but fails to do so by large amounts of plant proteins forcibly fed. All proteins are rendered absolutely harmless, *no matter how often injected*, when they are completely digested, even in a test tube. An animal's own serum, or serum from its own species (autogenous serum), does not produce anaphylactic shock. Human serum injected into human beings can safely be repeated.

A hospital apothecary to whom the matter was mentioned says that the query brings out the strongest point to be made in favor of autogenous vaccines or bacterins, that is, that they do not produce the result to which you have referred. He says: "That there is produced a decided anaphylaxis by the use of the 'stock' vaccines is conceded by most practitioners and, often, in the smallest doses. Streptococcic bacterins have been administered in this institution in cases of septicemia in daily doses to the same patient without any deleterious effects, always, of course, of autogenous origin."

Anonymous Queries.—B. O., Nebraska.—Your attention is called to the standing notice at the head of this department in which it is stated that queries, to be answered by us, must be accompanied with the name and address of the writer. Not only do we keep that notice standing, but almost every month we print a note similar to this one, calling special attention to it; and now and then we give our reasons for having made such a rule.

Appeals to Readers.—Information is sought concerning the articles listed below. We ask for such help as our readers can give:

Mitchell's Magic Lotion.—F. G., California.

Woofter's Corn Remedy.—J. L. C., Massachusetts.

Caementium.—E. J. C., Michigan.

Booth's Mi-o-na.—E. J. C., Michigan.

Pazo Ointment.—E. J. C., Michigan.

Sanford's Liver Invigorator.—F. E. S., Michigan.

Casler's Oriental Paste.—P. P., Illinois.

Glycerin Skin Cream.

Hydrous wool-fat.....	4 ounces.
Glycerin	4 ounces.
Distilled water.....	4 ounces.
Castile soap.....	75 grains.
Oil of rose.....	15 drops.

Dissolve the soap in the water and add the glycerin. Place the wool-fat in a warmed mortar and gradually beat in the solution. When cool, add the perfume.

Benzin Ignited by Friction.

It has long been known that in rubbing articles in cleaning with benzin there is risk of producing an electric spark and consequent ignition of the highly inflammable liquid. This kind of accident occurred recently in a nearby town. A woman was cleaning some fur with benzin; while rubbing the fur a spark was produced, the benzin ignited and the woman was badly burned on the face, hands and arms. This accident again exemplifies the great danger of handling benzin. It is liable to become ignited from entirely unexpected sources. Even pouring from one vessel to another carries some risk of developing a spark.

Some Adhesives.

Liquid Cement.

Gelatin	100 parts.
Water	100 parts.
Zinc chloride.....	1 part.
Hydrochloric acid.....	enough.

Heat the gelatin with the water on a water-bath until the mixture becomes homogeneous. Add the zinc chloride and continue the heat until a portion of the mixture does not set solid when allowed to cool. Sometimes a little more zinc chloride is required. If the liquid is alkaline it must be neutralized with hydrochloric acid.

Liquid Glue.

Slaked lime.....	5 grammes.
Sugar	200 grammes.
Glue	enough.
Water	enough.

Mix the lime intimately with the sugar and add enough water to make 600 c.c. (mils). Heat the mixture to about 65° C. and maintain this temperature for about three hours, stirring the mixture occasionally. Allow the mixture to cool and settle; decant as much liquid as possible, and in this liquid dissolve glue in the proportion of 1 to 5.

Cement for Porcelain.

Sandarac	30 grammes.
Mastic	30 grammes.
Oil of turpentine.....	30 c.c. (mils).
Isinglass	enough.
Glue	enough.
Water	enough.
Alcohol (90%).....	500 c.c. (mils).

Dissolve the resins in the alcohol, and add the oil of turpentine. Make about 500 c.c. (mils) of a rather strong solution of glue in hot water and add to it a quantity of isinglass equivalent to the amount of glue used. Heat this mixture slowly until it begins to boil. Pour the hot liquid slowly into the alcoholic mixture, stirring constantly, until a paste, thin enough to strain through muslin, is formed.

Improved Copper Fungicide.

Perrin is quoted in the *Chemist and Druggist* as considering the following a more energetic horticultural fungicide than Bordeaux mixture:

Copper sulphate.....	1 part.
Sodium sulphate.....	1 part.
Soap	10 parts.
Water	40 to 90 parts.

Bismuth Gauze.

As a succedaneum for iodoform gauze, preferable because of its inodorosity and because it does not cause thyroidism, Wiener (*Internatl. Hosp. Rec. through Prescriber*) has introduced a bismuth gauze made as follows: Two ounces of bismuth subnitrate are thoroughly mixed with the same quantity of glycerin; 1 quart of warm water is gradually added, the mixture being constantly stirred so as to make a fine emulsion. A portion of about 21 yards of gauze is passed slowly through this emulsion three times so as to soak it thoroughly, after which it is wrung out. The gauze is then dried, cut into strips, loosely packed, and sterilized by steam for thirty minutes. The strength may be increased without harmful effects should the occasion warrant it.

Maine Board Questions.

Herewith is reprinted a set of questions recently supplied by the secretary of the Maine Board of Pharmacy. An examination of the files of the CIRCULAR for the past score or more of years does not discover another set of questions used by this board.

In reprinting board questions we endeavor to follow closely the nomenclature, spelling, punctuation and capitalization of the originals, our object being to give to our readers, just as nearly as practicable, the questions as they were presented to the candidates.

Pharmacy.

1. (a) What is meant by the term Solution? (b) How much Silver Nitrate will be required to make four fluid ounces of a 3% solution? (c) What is the objection to the use of heat in making extemporaneous Saturated Solutions?

2. (a) Give official name for Seidlitz Powders. (b) State quantity and official name of each ingredient each powder contains. (c) Under what conditions should they be prepared and preserved?

3. (a) How much Corrosive Mercuric Chloride would be required to make one gallon of a 1 to 2000 solution? (b) Spirit of Camphor U. S. P. is made as follows:—

Camphor, 100.Gm.

Alcohol ad, 1000.Gm.

Camphor costs 96c. per pound, and Alcohol \$2.65 per gallon. What is the cost of a pint of Spirit of Camphor?

4. (a) Name five substances which are incompatible with solutions containing alkaloids. (b) How many minims of Tincture of Opium, U. S. P. correspond to one grain of Powdered Opium? (c) In a mixture of lard two pounds, wax four pounds, and spermaceti one pound, what is the per cent. of each constituent in the whole mixture?

5. What is meant by Distillation, Sublimation, Communion, Dialysis, Percolation?

6. What is the United States Pharmacopoeia?

7. (a) What is the meaning of the term Specific Gravity? (b) How would you define the term Specific Volume? (c) What is the weight (Avoirdupoise) of a pint of glycerine? (d) A druggist buys 500 Grammes of Ether for 75c. and sells four fluid ounces for 45c. Just how much profit does he make on the sale?

8. (a) Name the ingredients of Pulvis Glycyrrhizae Compositus. (b) Give official name and formula for Compound Chalk Powder. (c) Give official name and formula for Dover's Powder. (d) What is meant by a No. 40, No. 60, or No. 80 sieve?

9. (a) Name the different methods by which the U. S. P. medicinal syrups are prepared. (b) Give formula and method of preparing Syrup of Ferrous Iodide. (c) Name the ingredients of Compound Syrup of Squill.

10. (a) How much quinine, strychnine, and ferric phosphate would be required to make 1000 cubic Centimeters of elixir iron quinine and strychnine phosphates, so that each fluid drachm of finished elixir should contain 1.64 grain of strychnine, one grain of quinine, and two grains of ferric phosphate? (b) How many grains in two ounces of water? (c) If moist opium, containing 10½% morphine, loses 30% of its weight in drying, what per cent. of morphine will it contain when dry?

Pharmaceutical Chemistry.

1. (a) Define Specific Gravity. (b) Define Specific Volume. (Note. Illustrate each definition by example to show that they are clearly understood.) (c) How would you take the Specific Gravity of Glycerin by means of the Specific Gravity bottle?

2. (a) State the difference between a Mixture and Chemical Compound. Illustrate. (b) Give example of a Molecular Mixture. (c) What is the difference between Analytic and Synthetic methods in Chemistry? Illustrate.

3. Acids. (a) By what rule do acids receive their names? (b) What prefixes and affixes are used to the hydrogen acids and why? (c) What prefixes and affixes are used to the oxygen acids and why? (d) What acid radicals are found in the chemical formulas of the following: (a) sulphates, (b) Carbonates, (c) Sulphites, (d) Acetates, (e) Tartrates.

4. (a) What is the composition of common salt? (b)

What difference exists between Sodium Carbonate and Sodium Bicarbonate both in regards to physical and chemical properties? (c) How can commercial Sodium Bicarbonate be purified so as to answer Pharmacopœial requirements?

5. (a) What is Benzene? (b) Differentiate between Benzene, Benzin, Naptha, Gasoline. (c) Name two preparations common in pharmacy which are derived from Benzene, and show by equation the preparation of one of the two mentioned.

6. How much Sulphuric Acid will be required to dissolve 10 pounds (avoirdupois) of Zinc?

Mol.wt. Zinc 65;

Mol.wt. Sulphuric Acid 98.

Note. Write equation showing the reaction and leave all figures on examination paper.

7. Carbon. (a) Mention the allotropic forms. (b) What is Carbon Dioxide and how made? (c) Write the reaction which will produce Carbon Dioxide. (d) What relation have the carbon compounds to Organic Chemistry?

8. Iron. (a) What is meant by a Ferric Salt and a Ferrous Salt? (b) How can one be transformed to the other? (c) By what tests can one be distinguished from the other?

9. Aldehydes. (a) What is their general constitution? (b) Name five most familiar in pharmacy. (c) Give in words and equation the process of manufacture of one of the five mentioned.

10. Name two or more official preparations which are chemically incompatible with the following: arsenic, potassium Iodide, Hydrogen peroxide, Lead Acetate, Calomel.

Materia Medica.

1. Give the Botanical name, part or parts employed, active or chief constituents, and average doses of U. S. P. preparations of the following drugs: Peppermint, Cascara, Squill, Poke Root, Calabar Bean.

2. State about the following drugs their Pharmacopœial name: Botanical name of plant from which they are obtained; their habitat, constituents, medical properties and uses: Licorice Root, Buchu, Coca.

3. State which of the following oils are fixed, and which are volatile, also how and from what they are obtained: Oleum Amygdala Amara, Oleum Tigilii, Oleum Morrhuæ, Oleum Camphoræ, Oleum Eucalypti, Oleum Amygdalæ Duleis, Oleum Gaultheria, Oleum Olivæ, Oleum Caryophylli.

4. What is Ergot? What precautions should be taken in the drying and keeping of the same?

5. Cantharis: describe its origin, general appearance, its most active constituents. What are the official preparations? Give doses and uses of the same. Which solvent is best adapted to extract its active principle? Name antidotes for its toxic effect. Commercially which kind of Cantharis is the best? How should it be preserved?

6. Cardamomum: State origin habitat, description, constituents, names of pharmaceutical preparations in which it is used. What variety is the best? Mention two other varieties and three substitutes which should not be used.

7. Socratine Aloes: state habitat, part official, constituents, official preparation, properties, uses, doses and describe how it differs from Barbadoes Aloes.

8. What part of the plant yields the official Hyoscyamus? Name two alkaloids found in this plant.

9. What are Fungi? Name an important drug from this source and give its therapeutic uses.

10. What part of the fruit is nutmeg, and what relation does mace bear to nutmeg?

Polish for German Silver, Brass and Copper.

Sodium chloride.....	2 parts.
Oxalic acid.....	3 parts.
Water	40 parts.
Bolted pumice.....	100 parts.
Oil of turpentine.....	2 parts.
Soft soap.....	12 parts.
Lard oil.....	12 parts.

Dissolve the salt in the water and the acid in this solution. Mix the solution with the powdered pumice; incorporate the soap; then beat in the oils.

Some Questions in Drug Store Mathematics.

Here are a few questions which may interest the drug clerk who wants to keep his knowledge of arithmetic bright until such time as he is ready to "go before the board." We invite clerks to send in solutions of these examples and also to contribute problems of a similar nature for publication here. In these examples official strengths, temperature, etc., are to be understood unless the contrary is specified:

1. A druggist supplies a physician with drugs at a uniform profit of $16 \frac{2}{3}$ per cent. over the actual prime cost. An elixir cost the druggist 32 cents a pint, less a discount of 20 and 2 per cent. How much should the physician be charged for 12 ounces of it?

2. In a rectangular can measuring $4\frac{1}{2}$ by $6\frac{1}{2}$ inches there is oil to the depth of 5 inches. How many pints of oil are there in it?

3. A drug clerk receives a salary of \$18 a week, and is on duty 14 hours a day for 5 days, 6 hours a day on Wednesdays, and 5 hours on every other Sunday, with the alternate Sundays "off." A street car conductor receives a salary of \$12.50 a week and works 10 hours a day for 6 days, and 5 hours on 1 day, each week. Which one receives the higher wages per hour, and how much?

4. A boy of sixteen years, after two years at high school, began to learn the drug business. He received a salary of \$20 a month for the first year; \$25 a month the second year; \$30 a month the third year, and \$40 a month the fourth year. The fifth and sixth years he spent 8 months at college each year, earning \$25 a month during the sessions, \$50 a month during the first vacation, and \$60 a month during the second vacation. His total college fees were \$250. For five years after his graduation he received a salary of \$1,000 a year. Beginning the same year, his eighteen-year-old brother, after four years at high school, began to study medicine. He attended college 4 years, his total fees being \$450; his earnings nothing. Upon graduation he spent for office equipment \$400, and for a horse, harness and buggy, \$300. For his horse's board he paid \$14 a month; for office rent, \$10 a month; and for a boy \$12.50 a month. At the end of 11 years the druggist went into business for himself. As a clerk, how much had his earnings been in excess of what his profession had cost him, and how much must the physician's annual income have been in excess of the expenses enumerated, for him to have made as much as the druggist?

5. A druggist put in a soda water outfit at a cost of \$472, and he and his clerks attended to it at no additional expense for salaries. The cost of syrups, flavors, carbonated water, etc., for the 20 weeks the fountain was "open" was \$2.15 a day (no Sunday work); and the average number of drinks sold was 134 at 5 cents each. The next season he put in a 1900 outfit, hired a dispenser at \$20 a week; spent \$18.50 a day for syrups, crushed fruits, cream, ice cream, advertising, etc., and for the first 20 weeks sold an average of 520 drinks a day at 10 cents each, and 96 at 5 cents each (no Sunday work). During the "off" season of 32 weeks, his average expenses for ingredients and his average sales were just half what they were during the "rush" months, the salary of the dispenser being the same. How much were his profits on the soda business the first year and how much the second, after marking off 6 per cent. for interest on the cost of the outfit?

6. If stationery constitutes one-fourth of a druggist's stock and his annual sales of it amount to \$1,800, one-third of which is profit; and "patents" constitute one-half of his stock and his annual sales of them amount to \$4,200, one-tenth of which is profit, does the stationery furnish or the "patent" half of his stock yield him the greater profit, and how much?

7. With granulated opium at \$7 a pound, and alcohol at \$2.90 a gallon, what is the cost of the ingredients entering into 1000 c.c. (mils.) of tincture of opium?

8. What is the smallest number of even pints (no fractions of a pint to be used) of nitric acid (sp. gr. 1.40) that will balance an even number of pints of water?

9. A bottle filled with nitric acid (sp. gr. 1.40) weighed, with its contents 20 ounces. The same bottle filled with ammonia water, weighed 14 ounces; what is the weight of the bottle alone?

10. What is the weight (in grains) of potassium and what the weight of iodine in 20 grammes of potassium iodide?

Answers to February Questions.

1. 1 pound.
2. First clerk, \$720; second clerk, \$672.
3. 144.
4. $12.48 +$ ounces.
5. 10 cents.
6. 8 ounces, 268 grains.
7. (a) 50 per cent.; (b), $33 \frac{1}{3}$ per cent.
8. Loss (the difference between 20% and $16 \frac{2}{3}\%$).
9. Taking no account of the expenses of doing business, 8 cigars are profit; the loss of 9 cigars would mean actual loss.
10. Alcohol 2 parts, water 1 part.

Health as a National Asset.

In a paper read by F. F. Westbrook at the meeting of the Second National Conservation Congress and recently published in the *Journal of the American Medical Association*, the value of life and health to our national prosperity are pointed out. The author says that we cannot disassociate the conservation of health and life from that of our other national resources, and he points out the failures and difficulties of the past and the reasons why the fact has been so little appreciated up to date. Disease is a manifestation of life that is capable of modification, prevention or cure by human agency; and even death may be postponed by the same means. The national annual loss from neglect of these matters in the way of preventable disease and death has been estimated as high as a billion dollars annually. He points out, however, the difficulties we have to meet in the eradication of sickness and postponement of death. The absence of any general method for meeting the needs is one difficulty; there is no universal method of cure or prevention, and the individualistic tendency which we have to contend against is another. Public apathy in regard to the subject must be overcome. Private effort alone is too often inefficient. Law has to follow public opinion and the public is not yet fully educated as to its needs, though at the present time the public press and other publications, government and private, are overflowing with information on the subject. What Americans can do when supported by authority in the way of eradicating disease has been shown in our tropical dependencies. At home we have the brains to do the work; we have not yet learned to delegate the authority and pay the bills. The public health functions of the medical profession are noticed; as yet the public has not learned to employ the profession for its own collective good. The individual is willing to pay for his cure when he is sick, and communities pay the costs of epidemics, but what they seem to want is a cure not protection. There should be a better co-operation and understanding between the medical profession and the public.

Working Against Tuberculosis by Posters.

Twenty thousand large posters are being placed on the billboards in various places throughout the country by the National Association for the Study and Prevention of Tuberculosis. The National Billposters' Association has donated free space, the Poster Printers' Association has given free printing, and nine paper manufacturers have given the paper for the posters, which are of six different designs. In graphic form the posters show how fresh air, good food, and rest, cure tuberculosis; how bad air, overwork, and closed windows lead to it; and how the careless consumptive menaces the health of his family by spitting.

More Board Questions Answered.

Following up the subject of curious answers given by board examinees, we are herewith presenting a number of such answers. In the CIRCULAR for last month, page 151, appears the introductory article on this subject.

Pennsylvania.

Q. How, and why, is milk pasteurized?

A. Milk is pasteurized according to the pasteur institute by heating milk at a very high temperature with simply a pledget of cotton and access of air, but continuing this treatment on three consecutive days they claiming that in this time the germs and eggs which were layed before pasteurization began would have been hatched and would be killed by the continuous treatment, but if it is a question whether it isn't just as good to sterilization as sterilization usually kills if done properly and you might as well make an aquarium as a morgue of your stomach. [This is a good illustration of how good ideas may get mixed with bad, and go astray.]

A. By treating the cows with the same kind of food all the time because they want to be sure it is containing the same constituents.

Q. How are medicated waters made?

A. They are made by distillation, solution, decantation and sublimation.

A. Lead water is made by distillation.

Q. Why are the words "corrosivum," "mite," "flavum," "rubrum" used in the official titles of mercurial salts instead of the chemical names?

A. On account that the chemical names of the two chlorides is the same, and the same of the two oxides.

Q. How is mercuric iodide made?

A. By reaction between nitric acid and corrosive sublimate.

A. By rubbing together mercury oxid. flav. chloride, iodine and potassium iodide.

Q. Give the botanical name of yellow jessamine?

A. Hydrates canadensis.

A. Lobelia inflata.

A. Vibernum opulus.

A. Pilocarpus jub.

A. Cinchona bark.

A. Dativa stramonium.

A. Sarsaparilla.

Q. Give the Latin official title for oil of camphor.

A. Oil of camphor.

A. Camphorated oil.

A. Lin. camph.

A. Oleum camphoratum.

Q. Name the constituents of cow's milk.

A. Yeast, tartaric acid, etc.

Alabama.

Q. What is specific gravity? State how you would obtain the specific gravity of a liquid. Of a solid.

A. I don't know much about specific gravity, but think it has something to do with weighing. You would get the specific gravity of a solid by weighing it in the air and put it in water and measure the amount of the water with a barometer.

Q. How is glycerin obtained?

A. By getting calves and boiling them down.

Q. What is chemistry?

A. Chemistry is that branch of science which treats of the change which takes place on the outside of a molecule.

Q. Why is oxygen the most important of all the elements?

A. Because it is our life; something druggists get too little of. [This man ought to have passed on this answer alone.]

Iowa.

Q. What is the common synonym and principal medical use of linimentum calcis?

A. Synonym is opaldilcock and medicine properties ant acid.

[The following answers were recently given by a doctor of seven or eight years' practice, and thirty-five years of age, in an examination in pharmacy:]

A. Male fern, is aspidium, is a diuretic.

A. Colocynth is obtained from colocynt citridula seed, is a diuretic and poison.

A. Ichthyol is obtained from the head of the sperm whale.

A. Sparteine sulphate is obtained from the root and rhizome, is a cathartic.

A. Opium is a narcotic and contains 1½% of morphine.

A. Tulley's powder is co. chalk powder.

District of Columbia.

[In reply to our request for data for use in this article, the examiner on practical pharmacy wrote that the nature of his work was such that he could not give us questions and answers, but from his letter we cull the material given below.]

I have had applicants when directed to prepare the official glycerite of starch to stir the starch in a mortar with the water add the the glycerin and dispense same in a bottle as a shake mixture.

The carelessness of applicants as to cleanness often is overlooked so that pills, powders, suppositories, emulsions and almost all preparations that should be white when completed look as though they had been made in a dirty vessel or on the floor.

Prescriptions containing substances that produce a chemical reaction are often overlooked until too late, with the result that half of the prescription will be lost if the said reaction results in producing a gas, as in Basham's mixture, or making a solution of sodium salicylate by neutralizing the acid with sodium bicarbonate.

On one occasion I discovered an applicant when making a pill mass desiring to clean his spatula, rub the same vigorously on the sole of his shoe and use it without even wiping it, much less washing it. Certainly this can not be considered sanitary pharmacy and the applicant received no credit whatever for the work he did on this prescription. The same carelessness was characteristic of all his work, consequently the result was failure.

I find that a large majority of applicants have no conception of the proper manner of using delicate balances, but throw the material on the balance as they would weigh potatoes, spilling as much over the balance case as they have on the pan. The weights they throw around promiscuously and care nothing about dropping them on the floor and leaving them there.

On one occasion fifteen applicants lost more material on the balances, desk and floor than they consumed in filling the prescriptions. Fortunately, for them, they did not have to pay the bill for the same, and, for us, the material was not expensive.

I have had applicants give a demonstration of official process for percolation by macerating the drug for two hours in a closed vessel, packing the percolator and pouring on the menstruum, and stopping the same as soon as it had passed through the drug. In a large majority of cases the material was spoiled and the resulting tincture, if it had been completed, would have been worthless as it would not have represented the active constituents of the drug.

After considerable experience in examining applicants I have come to the conclusion that the trouble with many of them is that instead of being natural and doing the work set out for them as they would where they are employed they want to give an exhibition of their knowledge, with the result they do some very foolish things.

A board member, whose State it would perhaps be just as well not to mention here, writes:

I have been on the board so short a time that I have not seen very much as yet. The most striking defect I have observed is that candidates do not read the questions; they merely glance over the questions instead of carefully reading them. I find this to be the trouble in three-quarters of the cases. I used to think that the large majority were not fit to come before the board, but since I have been on the board I am so discouraged with the quality and lack of education of the candidates that I tremble for the future unless the educational requirements are raised. It appears to me that they do not realize the responsibility of their position. It does not in the least seem to hurt their pride if they do fail. "I'll try again," is what we hear, and some of them try five or six times.

We repeat our invitation of last month to all board members and former board members to contribute curious answers for publication here, as by studying such answers we can learn a good deal about what the candidates need, and also get ideas as to clarifying the language of some of the questions.

Correspondence.

Short, timely articles upon subjects of interest to pharmacists are solicited for this department. In order to be in time for publication in the issue of a given month, they should be in the editor's hands on the fifteenth day of the month previous. Anonymous communications will not be published; but if the author expresses a wish to have his name withheld, this wish will be scrupulously regarded and his letter considered confidential.

Has the Drug Clerk a Chance?

New York, February 17th, 1911.

To the Editor of THE DRUGGISTS CIRCULAR:

Much as has been said concerning the condition of the drug-clerk, hardly any of your correspondents touched the right key in their discussions. So I take the liberty to add my mite towards this interesting but seemingly unsolvable subject.

Why do drug clerks compare themselves to car conductors, bricklayers, plumbers and the like? In their letters to you they invariably quote working hours and wages of these men for comparison. This is a fallacy and illogical. The compeers of the drug clerk are not any of the above, but obviously men of some education and followers of "semi-professions" or professions.

In making comparisons why don't they or you take civil engineers, dentists or public accountants for examples? I know why you fail to enlighten us on the subject, and I do not blame you for failing to do so. For if you would publicly uphold our contentions (I am almost sure you do privately) you would lose many a penny. However, to come back to where we started from. The above-named vocations are similar in many points to ours, and by comparing remunerations you will find that civil engineers receive \$3.50 per day for eight hours' work, dentists get on an average \$25 per week, for eight hours a day, with alternate Sundays and holidays, while public accountants do not work for less than \$22 a week, of five days of eight hours each, and one of four hours. In none of these professions is as big a capital needed for launching in business as in ours. Two of them can be learned at night, and therefore while the student is earning a salary (one of the greatest inducements pharmacy has to offer); the third one, dentistry, is the only one requiring four years of study, but is on that account of a higher level than pharmacy.

This information is correct, having received same from friends who follow these vocations. Now tell us frankly, why should a drug clerk work for \$20 a week, of six days of twelve hours each, not mentioning anything about the holidays and Sundays which usually the boss takes himself, and about the menial work he has to do not only as an apprentice and junior, but usually as a registered man, too?

You contend that the good clerk has opportunities of advancement. Pray to what? What position is there above clerkship in the average store? The big stores, though they may loom large on the horizon, are yet small in number compared to the many 2 by 2 corner stores, where most of the clerks find employment, and therefore the chances of managerships are proportionately small.

I am an ex drug clerk, and with modest pride may say that I was a good one, or otherwise my boss would not have called me back after an absence of six months, and another druggist would not have offered me a position with quite a high salary six times,

which I just as often refused. Under these conditions I view the situation without bias, and quite agree with Mr. P. C. Wray (who, by the way, was a classmate of mine at the New York College), that the drug business is not the worst by any means, and usually looks better after some time "off." But that "time off" is hard to get, and will be so, until the influence-having journals, of which you are the foremost, will help us in our efforts to that end.

But time will help and I am sure you will, too.

VERITAS.

[If we wrote a letter to a subscriber calling him a crook, would he paste it to the under side of the glass of his show case so that all his customers could read it? We think not. Yet here is a correspondent who writes that we are actuated by mercenary motives to act unjustly toward a large class of our friends and subscribers, and we are publishing what he says. His charge falls by the weight of its own ridiculousness. Just what he means by the language he uses, no one can say, but he seems to be blaming us for allowing correspondents to make certain comparisons in our columns, instead of compelling them to make others more to his liking. Why a few drug clerks here and there break out now and then with a complaint that their class are the downtrodden of the earth, and that their employers and the journals and the balance of the world are in league to prevent them from ever having a show, passes the comprehension of the ordinary thinking, reasoning mortal.

If there is such a league it fails to be effective in many cases, for perhaps over 99 per cent. of the successful proprietors of to-day were drug clerks who could not be kept down. And that is not because conditions were better for the clerk (from the clerk's point of view) years ago than they are now. In the old-time apprentice days no such salaries as those paid these times were ever heard of. About all the younger fellows got was their board and clothes and a lot of mighty valuable training and experience, while the older ones did not fare a great deal better. In many cases the office of the apprentice was in the cellar, and his work consisted of powdering drugs, wrestling with barrels of linseed oil, kerosene, and spirit of turpentine, and doing other work that is too "menial" for the present-day high school lad whose father has a good position but (what some old-time people seem to think) the wrong idea of bringing up a boy to be a manly, independent man. In the morning before the old-style drug store apprentice began his day's work he had to sweep the store, fill and clean the kerosene lamps, polish the show cases, wash the windows, scour the shelves, rub the shop bottles, put coal on the furnace, and do a few more chores. But all this could not keep them down. From this old school of clerks graduated such men as Frederick Stearns, William R. Warner, A. P. Sharp, Louis Dohme, John Wyeth, D. C. Robbins, Eli Lilly, Gerhard Mennen, Robert W. Johnson, L. T. Lazell, W. J. M. Gordon, Dundas Dick, and Theodore Metcalf, among the dead, and hundreds of well-known successful wholesalers, manufacturers, teachers, authors and others, not to mention the retailers again, or our good friends, the doctors, among the living. And in the present-day school there are clerks training to occupy positions of equal prominence in the drug world of the coming generation. Of course, not all drug

looking about for competent authorities for the physiologic examination of the preparations of digitalis and strophanthus. I first decided to assign these to some pharmacologist in New York. However, on second consideration, I decided that it would be better to have this work done by Prof. Vanderkleed, whose recent lectures in this city impressed me very much, also since your firm has been pioneers in this line. This work was done for me as a personal favor and paid for. The report was handed in by me with no name attached, that of the firm was carefully omitted. The use of your name was not authorized by me nor did I have any knowledge of whose samples were being examined. All of the prescriptions examined were known only by numbers, hence partiality was shown no one.

Very truly yours,
V. Coblentz.

Dr. Vanderkleed did not know that this was for publication.

Some action taken on this matter by a meeting of druggists held March 23d is reported in another column.

To a representative of the CIRCULAR Mr. Mulford said: "Sensational methods are not favorably regarded by our house, and we believe that the greatest permanent good in the investigations of pharmaceutical conditions can be accomplished by pharmaceutical authorities acting under proper municipal, State or national control. Our efforts have been and consistently will be made in doing what we can to improve pharmaceutical conditions, as we recognize that whatever improves conditions for our patrons or for legitimate pharmacy, adds credit to those engaged in the occupation."

New York Druggists Affiliate for Protection.

Representatives of ten of the pharmacal organizations of this city, constituting a conference committee on matters of laws and pharmacal regulation held a well-attended meeting March 23d. When the assemblage had been duly convened Dr. William Muir, of Brooklyn, who acted as chairman told briefly of the work the committee had done and called attention to the fact that the board of health's anti-opiate ordinance (see last month's CIRCULAR, page 164) had again been amended by striking out the words "Any such prescription shall not be refilled." A motion prevailed to continue the conference committee; its permanency seems assured.

Resolutions voicing the thanks of the drug trade to the board of health were offered by C. O. Bigelow and passed. A copy of the resolutions will be sent to Dr. Lederle, the health commissioner.

C. A. Mayo was elected secretary and treasurer of the conference committee. A communication was sent to the several associations asking for a donation of \$5 to defray the incidental expenses of the committee.

A discussion arose concerning the recently displayed activity of the New York *World* in matters pharmacal (see above). Dr. G. C. Diekman in explaining the origin of the investigations said that a physician was reported to have informed a man closely connected with the newspaper that the demise of one of his patients had been hastened, if not altogether caused, by the dispensing by a pharmacist of tincture of strophanthus (or digitalis—the speaker was not certain) that was therapeutically far from what a satisfactory preparation should be.

Dr. Diekman explained that the physiological testing of the preparations collected by the representatives of the newspaper had been done by the H. K. Mulford Company in ignorance of the purpose of the examination (see above). In this connection the speaker pointed out that druggists as a rule did not manufacture their own preparations of digitalis and strophanthus and that no standards were set for them in the United States Pharmacopoeia.

Peter Diamond was of the opinion that the matter should be let alone by druggists generally as it would work no hardship on those who were honest.

Dr. Diekman said that he had been asked to have the New York Board of Pharmacy co-operate in applying the pharmacy law in connection with the disclosures of the investigation, and he had agreed to do so. He asked for the opinions of others present, and his position was finally upheld, although for a time criticism of the board's proffering co-operation was rife.

C. O. Bigelow felt that the newspaper involved did not care what the honest druggist did, but was concerned only with punishing the guilty. He said that much of the dishonesty charged to the druggists was caused by ruinous competition in the prices charged for prescriptions encouraged by "shoppers."

S. V. B. Swann said that, meeting a number of druggists daily, he heard many statements to the effect that the

board of pharmacy was lax in the performance of its duties. He did not believe this to be true, but thought that the feeling existing was one of dissatisfaction.

Mr. Bigelow defended the board, which he said was conducting two hearings a month, having had six hearings with an average of eight accused persons at each hearing. Half the cases, he said, were settled at the headquarters of the board. Mr. Bigelow stated that more inspectors would be had shortly in this district.

Prof. W. C. Anderson had the impression that the newspaper investigation would help the board of pharmacy in its work. He regretted that anyone should get the impression that the board was not active.

Dr. Diekman referred to the fact that there was no board in existence from August until October last, and that it was not until February that the board could begin the active performance of its duties. He said that the board had been criticised for not revoking licenses and he pointed out the necessity of securing more than one conviction before a revocation was possible.

Otto Raubenheimer said that the board was handicapped in having no office in this city at present and also by a lack of funds to carry on the work.

The meeting was adjourned subject to the call of the chair.

Kings County Society.

At the regular monthly meeting of the Kings County Pharmaceutical Society, held March 14th, six names were added to the roll of members, and two additional applications for membership were received.

In the absence of the treasurer, Adrian Paradis, his report was read by Dr. William Muir. The balance to the credit of the society was reported to be \$381.63 and the report credited to the Brooklyn college \$11,742.66.

Following this report came a lengthy account of the doings in the legislative field of interest to pharmacists. Dr. Muir made this also, giving a synopsis of the different bills now pending in the State legislature. The committee favored the bill designed to prevent the sale of hypodermic syringes and needles, except upon the order of a physician or a veterinarian.

Another measure which sought to curtail the power of local authorities in relation to the regulation of pharmacy was discussed at length. The consensus of opinion seemed to be that to advocate such a law at this time would not be wise. Dr. Muir believed that the origin of legislative matters should be with the State association and not in local organizations as this measure was said to have originated. Otto Raubenheimer favored the bill, arguing that it was now time to act to preclude further board of health ordinances which would inflict hardships upon the druggist. A motion was carried after considerable discussion placing the society on record as maintaining a neutral position with regard to this bill.

It was suggested that the conference committee be empowered to investigate the traffic in cocaine and to confer with the police authorities if necessary in an endeavor to stop the unlawful sale of this drug. After considerable discussion a special committee of three was appointed to take up the matter.

Charles Heimerzheim reported a balance of \$39.25 remaining in the hands of the propaganda committee, and said that another supply of propagandic postal cards was ready for distribution.

Prof. W. C. Anderson told of a joint meeting of the doctors and druggists of Staten Island which had resulted in the formation of a local association to promote propagandic work and the furtherance of better relations between the representatives of the two professions.

Prof. Anderson also made a report concerning an interview with the authorities of the Brooklyn hospital alleged to have detracted the druggists in the matter of prescriptions (see last month's CIRCULAR, page 165). He said that he had been informed that prior to the establishment of the dispensary of the hospital, a certain druggist had filled most of the prescriptions and had endeavored to secure these prescriptions after the establishment of a dispensary. For this reason patients were being advised to patronize the dispensary. Prof. Anderson said that the hospital authorities had not taken thought of the reflection of their action upon pharmacists at large and would endeavor to have matters better adjusted.

Otto Raubenheimer, of the committee on pharmacy, in-

roduced Dr. J. L. Mayer, the speaker of the day, who presented a paper on "Milk Analysis." This paper appears in full on page 185 of this issue.

Owing to the lateness of the hour the paper was not discussed. The author was officially thanked by the society.

It was announced that the speaker for the April meeting would be Prof. Joseph Kahn, who would speak on "The Newer Synthetic Remedies."

New York German Apothecaries.

Following the opening duties of the meeting of the New York German Apothecaries' Society held March 2d, Emil Roller, chairman of the scientific committee, announced that at the meeting to be held April 6th, Dr. E. W. Ditrach would deliver a lecture on "Salvarsan." The social session discussed at the previous meeting he said would be held in the hall of the New York Turnverein April 13th or 20th.

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Dr. L. L. Roos of the local health board contributed to the program of the evening by criticising very openly the remarks of Dr. Muir relative to the regulation of the sale of opiates. He contended that the anti-narcotic ordinance should never have been changed from its original stringent form.

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Resolved, That while we doubt the truth of this assertion we are anxious to put ourselves on record to assist the health officers in any way they may suggest in putting an end to any such illegal traffic as may be discovered or suspected.

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The principal speakers on the after-dinner program were Dr. A. S. Walsh, Dr. G. C. Diekman, Dr. William Muir, W. H. Weygand, president of the alumni, J. R. Wall, and C. H. Goddard.

looking about for competent authorities for the physiologic examination of the preparations of digitalis and strophanthus, I first decided to assign these to some pharmacologist in New York. However, on second consideration, I decided that it would be better to have this work done by Prof. Vanderkleed, whose recent lectures in this city impressed me very much, also since your firm has been pioneers in this line. This work was done for me as a personal favor and paid for. The report was handed in by me with no name attached, that of the firm was carefully omitted. The use of your name was not authorized by me nor did I have any knowledge of whose samples were being examined. All of the prescriptions examined were known only by numbers, hence partiality was shown no one.

Very truly yours,
V. Coblentz.

Dr. Vanderkleed did not know that this was for publication.

Some action taken on this matter by a meeting of druggists held March 23d is reported in another column.

To a representative of the CIRCULAR Mr. Mulford said: "Sensational methods are not favorably regarded by our house, and we believe that the greatest permanent good in the investigations of pharmaceutical conditions can be accomplished by pharmaceutical authorities acting under proper municipal, State or national control. Our efforts have been and consistently will be made in doing what we can to improve pharmaceutical conditions, as we recognize that whatever improves conditions for our patrons or for legitimate pharmacy, adds credit to those engaged in the occupation."

New York Druggists Affiliate for Protection.

Representatives of ten of the pharmacal organizations of this city, constituting a conference committee on matters of laws and pharmacal regulation held a well-attended meeting March 23d. When the assemblage had been duly convened Dr. William Muir, of Brooklyn, who acted as chairman told briefly of the work the committee had done and called attention to the fact that the board of health's anti-opiate ordinance (see last month's CIRCULAR, page 164) had again been amended by striking out the words "Any such prescription shall not be refilled." A motion prevailed to continue the conference committee; its permanency seems assured.

Resolutions voicing the thanks of the drug trade to the board of health were offered by C. O. Bigelow and passed. A copy of the resolutions will be sent to Dr. Lederle, the health commissioner.

C. A. Mayo was elected secretary and treasurer of the conference committee. A communication was sent to the several associations asking for a donation of \$5 to defray the incidental expenses of the committee.

A discussion arose concerning the recently displayed activity of the New York World in matters pharmacal (see above). Dr. G. C. Diekman in explaining the origin of the investigations said that a physician was reported to have informed a man closely connected with the newspaper that the demise of one of his patients had been hastened, if not altogether caused, by the dispensing by a pharmacist of tincture of strophanthus (or digitalis—the speaker was not certain) that was therapeutically far from what a satisfactory preparation should be.

Dr. Diekman explained that the physiological testing of the preparations collected by the representatives of the newspaper had been done by the H. K. Mulford Company in ignorance of the purpose of the examination (see above). In this connection the speaker pointed out that druggists as a rule did not manufacture their own preparations of digitalis and strophanthus and that no standards were set for them in the United States Pharmacopœia.

Peter Diamond was of the opinion that the matter should be let alone by druggists generally as it would work no hardship on those who were honest.

Dr. Diekman said that he had been asked to have the New York Board of Pharmacy co-operate in applying the pharmacy law in connection with the disclosures of the investigation, and he had agreed to do so. He asked for the opinions of others present, and his position was finally upheld, although for a time criticism of the board's proferring co-operation was rife.

C. O. Bigelow felt that the newspaper involved did not care what the honest druggist did, but was concerned only with punishing the guilty. He said that much of the dishonesty charged to the druggists was caused by ruinous competition in the prices charged for prescriptions encouraged by "shoppers."

S. V. B. Swann said that, meeting a number of druggists daily, he heard many statements to the effect that the

board of pharmacy was lax in the performance of its duties. He did not believe this to be true, but thought that the feeling existing was one of dissatisfaction.

Mr. Bigelow defended the board, which he said was conducting two hearings a month, having had six hearings with an average of eight accused persons at each hearing. Half the cases, he said, were settled at the headquarters of the board. Mr. Bigelow stated that more inspectors would be had shortly in this district.

Prof. W. C. Anderson had the impression that the newspaper investigation would help the board of pharmacy in its work. He regretted that anyone should get the impression that the board was not active.

Dr. Diekman referred to the fact that there was no board in existence from August until October last, and that it was not until February that the board could begin the active performance of its duties. He said that the board had been criticised for not revoking licenses and he pointed out the necessity of securing more than one conviction before a revocation was possible.

Otto Raubenheimer said that the board was handicapped in having no office in this city at present and also by a lack of funds to carry on the work.

The meeting was adjourned subject to the call of the chair.

Kings County Society.

At the regular monthly meeting of the Kings County Pharmaceutical Society, held March 14th, six names were added to the roll of members, and two additional applications for membership were received.

In the absence of the treasurer, Adrian Paradis, his report was read by Dr. William Muir. The balance to the credit of the society was reported to be \$381.63 and the report credited to the Brooklyn college \$11,742.66.

Following this report came a lengthy account of the doings in the legislative field of interest to pharmacists. Dr. Muir made this also, giving a synopsis of the different bills now pending in the State legislature. The committee favored the bill designed to prevent the sale of hypodermic syringes and needles, except upon the order of a physician or a veterinarian.

Another measure which sought to curtail the power of local authorities in relation to the regulation of pharmacy was discussed at length. The consensus of opinion seemed to be that to advocate such a law at this time would not be wise. Dr. Muir believed that the origin of legislative matters should be with the State association and not in local organizations as this measure was said to have originated. Otto Raubenheimer favored the bill, arguing that it was now time to act to preclude further board of health ordinances which would inflict hardships upon the druggist. A motion was carried after considerable discussion placing the society on record as maintaining a neutral position with regard to this bill.

It was suggested that the conference committee be empowered to investigate the traffic in cocaine and to confer with the police authorities if necessary in an endeavor to stop the unlawful sale of this drug. After considerable discussion a special committee of three was appointed to take up the matter.

Charles Heimerzheim reported a balance of \$39.25 remaining in the hands of the propaganda committee, and said that another supply of propagandic postal cards was ready for distribution.

Prof. W. C. Anderson told of a joint meeting of the doctors and druggists of Staten Island which had resulted in the formation of a local association to promote propagandic work and the furtherance of better relations between the representatives of the two professions.

Prof. Anderson also made a report concerning an interview with the authorities of the Brooklyn hospital alleged to have detracted the druggists in the matter of prescriptions (see last month's CIRCULAR, page 165). He said that he had been informed that prior to the establishment of the dispensary of the hospital, a certain druggist had filled most of the prescriptions and had endeavored to secure these prescriptions after the establishment of a dispensary. For this reason patients were being advised to patronize the dispensary. Prof. Anderson said that the hospital authorities had not taken thought of the reflection of their action upon pharmacists at large and would endeavor to have matters better adjusted.

Otto Raubenheimer, of the committee on pharmacy, in-

troduced Dr. J. L. Mayer, the speaker of the day, who presented a paper on "Milk Analysis." This paper appears in full on page 185 of this issue.

Owing to the lateness of the hour the paper was not discussed. The author was officially thanked by the society.

It was announced that the speaker for the April meeting would be Prof. Joseph Kahn, who would speak on "The Newer Synthetic Remedies."

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Pennsylvania's Proposed New Pharmacy Law.

One of the most voluminous bills ever considered by the Pennsylvania legislature is the measure designed to codify and make more stringent the laws of the State regulating the sale of drugs and the practice of pharmacy, introduced by Representative Hecht, of Philadelphia. The bill was prepared by S. L. Clements, attorney for the board of pharmacy, and has the approval of the pharmacal organizations of the State generally.

The bill provides for the establishment of "the Pennsylvania Drug Commission," composed of five of "the most skillful pharmacists in Pennsylvania who are not teachers or instructors in any college," who are to be appointed by the governor for five-year terms. From these members are to be elected a president, a secretary and a treasurer, the salary of the secretary, who is to be the executive officer, not to exceed \$3,000 per annum.

Should the bill become a law, proprietors of pharmacies and licensed stores must obtain annual licenses at a cost of \$1 each, and in each pharmacy there must be a copy of the Pharmacopoeia, of the National Formulary and, under certain conditions, of the American Homeopathic Pharmacopoeia.

The bill provides that examinations are to be held four times a year, applicants for license as pharmacists to have had five years' practical experience and be graduates of a recognized school of pharmacy. Assistant pharmacists are provided for. The New York law is copied with regard to the revocation of licenses, and to reciprocal licensure.

The anti-narcotic provisions of the bill are very stringent. Except in the case of preparations for external use and bona-fide medicinal preparations containing less than a stated amount, opium and its derivatives may be sold at retail only on prescriptions which are not to be refilled. Restrictions are also placed about the prescribing of narcotics and the illegal possession of these drugs is defined. Still more stringent are the restrictions relative to cocaine, its salts and analogues.

The character of the label for drugs of other than official strength is quite clearly set forth in the bill, which says that the label on such drugs must bear the statement "not of official strength." In other respects the misbranding features of the bill are similar to those of the federal food and drugs act.

This measure would repeal all other pharmacy laws at present on the statute books of the State.

The "patent medicine" bill of Representative E. H. Fahy, of Philadelphia, providing for the publication of the formula of proprietary medicines on the outside wrapper and label of the bottle, box or other container, has been so amended by its author as to provide that the act shall not apply to a registered druggist manufacturing his own specialties to be sold at retail from his own place of business.

One Million Dollars for the Philadelphia College of Pharmacy.

In order that the Philadelphia College of Pharmacy may erect and equip a suitable building to form one of a notable group of structures to be used for educational purposes, an alumnus of the college living in England has offered to donate \$1,000,000 to his alma mater. The city is constructing a new boulevard between the city hall and the Greene street entrance to Fairmount Park, and an effort will be made to induce a number of large educational institutions at present scattered throughout the city, to build along this thoroughfare on sites to be donated by the city. In discussing the matter Prof. Remington said:

"The present location of the college on Tenth street above Arch, although admirably suited for conditions ten years ago, has become surrounded by high business buildings and the fire risk has become immensely increased. The 15,000 books, constituting probably the most valuable collection of the kind in existence, are crowded into alcoves and shelves clear up to the ceiling of the library, and the overflow is stowed away in adjoining rooms until they too are nearly full.

"While there are many details to be worked out, we are up to the point where we have had plans prepared for a group of three buildings. One will be for administration purposes, another will be for the library, and the third for research work, all communicating. The cost will be not less than \$500,000, and it will take as much more to equip them. How long it will take to bring all the details to a satisfactory conclusion, it is impossible to say. Much de-

pends on the city and much upon our ability to raise the funds necessary for the cost and equipment of the building, but I expect in two, or possibly three, years to see the Philadelphia College of Pharmacy located out along the parkway on a site to be provided by the city between the city hall and Fairmount Park."

The name of the wealthy and generous alumnus has not been made public, but a number of those who have been wondering who he is recall the fact that Henry S. Wellcome, of Burroughs, Wellcome & Co., London, is a graduate of the college, and is reputed to have been very successful in the conduct of his business.

At a dinner given by Howard B. French, president of the college, to celebrate its ninetieth birthday, the members of the board of trustees, the faculty, the mayor of Philadelphia, heads of two sister colleges and several prominent representatives of the trade in Philadelphia, were present. On this occasion Mr. French, in the capacity of toastmaster, gave an interesting historical sketch of the college.

Mayor Reyburn emphasized the close relationship between the city's educational institutions and its general welfare, strongly advocating the centralizing of institutions of this class along the city's new boulevard so that they might derive all the benefits of close association, neighborly contact and ideal location.

Dr. J. W. Holland, dean of Jefferson Medical College, spoke of the close relation between pharmacy and medicine and mentioned some of the famous men in the sister professions who had attended both these venerable Philadelphia institutions. He referred to the fact that while Jefferson College was founded four years later than the Philadelphia College of Pharmacy, they graduated their first classes in the same year, 1826.

Brief addresses were also made by Henry F. Walton, president of the Medico-Chirurgical College, Prof. Joseph P. Remington, dean of the Philadelphia College of Pharmacy; Joseph L. Lemberger, of Lebanon, Pa., who succeeded the late Mahlon N. Kline as vice-president of the institution; Profs. Henry Kraemer, Samuel P. Sadtler and Frank X. Moerk.

Philadelphia Cocaine Pedler Sentenced to Jail.

Benjamin P. Ashmead, a United States drug inspector at the port of Philadelphia, has been convicted of selling cocaine illegally. The jury did not have to leave the box in order to agree upon a verdict.

After looking into the man's record and hearing pleas that sentence be suspended, Judge Carr sentenced him to serve a term of nine months in prison.

Ashmead is the inspector referred to by Christopher Koch in his statement before a congressional committee, reported in the CIRCULAR for February, page 71.

Pittsburg Anti-Cocaine Crusade.

The grand jury sitting at Pittsburg, Pa., in March, returned twenty-six indictments against druggists of that city charged by the Pennsylvania Board of Pharmacy with selling cocaine, as such or in nostrum "cures" of one sort or another. The city police officials are co-operating at every point with the pharmacy authorities and it is believed that the illegal sale of the drug will soon be effectually stamped out.

E. E. Szatmary, of Duquesne, who plead guilty to a charge of illegally selling cocaine was sentenced March 17th, to serve sixty days in jail.

Interprofession Fraternizing in Western Pennsylvania.

The druggists of Meadville, Pa., had as their guests at their annual banquet held March 8th, the matrons of the hospitals of the city and the members of the local medical society. Sociability was the entire motive. The address of the evening was by Dr. C. P. Woodring on "Impressions of Pharmacy and Medicine Abroad."

Wiley-Kelton Nuptials.

Dr. Harvey W. Wiley, chief of the bureau of chemistry, of the United States department of agriculture, and Miss Anna Campbell Kelton, an assistant in the library of congress, were married February 27th, at the home of the bride's mother in Washington.

News of the Pharmacy Boards.

List of Board Secretaries.

In the following list are to be found the names and addresses of the secretaries of the various boards of pharmacy of the country. When the date and place of the next meeting of a board are known they are given also.

Secretaries are requested to keep us informed as to dates and places.

ALABAMA—May 15th, at Birmingham. E. P. Galt, Selma.

ARIZONA—April 12th, at Phoenix. A. G. Hulett, Phoenix.

ARKANSAS—May 8th, at Little Rock. J. F. Dowdy, Little Rock.

CALIFORNIA—April 12th, at San Francisco. Louis Zeh, San Francisco.

COLORADO—S. L. Bresler, Denver.

CONNECTICUT—June 6th, at Hartford. J. A. Levery, Bridgeport.

DELAWARE—Albert Dougherty, Wilmington.

DISTRICT OF COLUMBIA—April 13th and 14th, at Washington. S. L. Hilton, Washington.

FLORIDA—June 12th and 13th, at Tampa. D. W. Ramsaur, Palatka.

GEORGIA—C. D. Jordan, Monticello.

IDAHO—April 11th, at Idaho Falls. J. M. Starrh, Shoshone.

ILLINOIS—F. C. Dodds, Springfield.

INDIANA—April 11th and 12th, at Indianapolis. W. H. Ruder, Salem.

IOWA—June 6th, at Des Moines. E. J. Moore, Des Moines.

KANSAS—May 25th, at Topeka. W. E. Sherriff, Ellsworth.

KENTUCKY—April 11th and 12th, at Louisville. J. W. Gayle, Frankfort.

LOUISIANA—May 9th to 11th, at New Orleans. F. A. Earhart, New Orleans.

MAINE—April 12th and 13th, at Augusta. F. W. Bucknam, Skowhegan.

MARYLAND—April 12th and 13th, at Baltimore. Ephraim Bacon, Roland Park.

MASSACHUSETTS—Every Tuesday between September 1st and July 1st, at Boston. P. J. McCormick, Boston.

MICHIGAN—E. J. Rodgers, Port Huron.

MINNESOTA—April 18th, at Minneapolis. C. T. Heller, St. Paul.

MISSISSIPPI—October 3d, at Jackson. L. H. Wilkinson, Greenwood.

MISSOURI—April 10th, at Kansas City. C. E. Zinn, Kansas City.

MONTANA—April 12th, at Butte. T. M. Kehoe, Billings.

NEBRASKA—A. V. Pease, Fairbury.

NEVADA—May 3d, at Reno. R. L. Prouty, Tonopah.

NEW HAMPSHIRE—F. H. Wingate, Nashua.

NEW JERSEY—April 20th, at Trenton. H. A. Jorden, Bridgeton.

NEW MEXICO—April 10th and 11th, at Albuquerque. A. J. Fisher, Santa Fe.

NEW YORK—May 24th and 25th, at New York, Albany and Buffalo. W. L. Bradt, Albany.

NORTH CAROLINA—July 7th, at Morehead City. F. W. Hancock, Oxford.

NORTH DAKOTA—June 20th, at Fargo. W. S. Parker, Lisbon.

OHIO—June 20th to 23d, at Columbus. F. H. Frost, Columbus.

OKLAHOMA—April 11th and 12th, at Oklahoma City. J. C. Burton, Stroud.

OREGON—C. G. Huntley, Oregon City.

PENNSYLVANIA—June 8th and 9th, at Pittsburg and Philadelphia. L. L. Walton, Williamsport.

RHODE ISLAND—May 2d, at Providence. J. E. Brennan, Pawtucket.

SOUTH CAROLINA—F. M. Smith, Charleston.

SOUTH DAKOTA—July 12th, at Lead. E. C. Bent, Dell Rapids.

TENNESSEE—April 18th, at Memphis. I. B. Clark, Nashville.

TEXAS—May 16th, at San Antonio. R. H. Walker, Gonzales.

UTAH—April 18th and 19th, at Salt Lake City. W. H. Dayton, Salt Lake.

VERMONT—D. F. Davis, Barre.

VIRGINIA—April 25th, at Richmond. T. A. Miller, Richmond.

WASHINGTON—P. Jensen, Tacoma.

WEST VIRGINIA—May 5th and 6th, at Wheeling. A. Walker, Sutton.

WISCONSIN—April 11th and 12th, at Madison. Edward Williams, Madison.

WYOMING—C. B. Gunnell, Evanston.

Alabama Board.

At a meeting of the Alabama Board of Pharmacy held at Montgomery in February the following were successful in the examination for applicants for registration:

As pharmacists—B. R. Bell, of Atlanta, Ga.; B. F. Beveny, of Littleton; C. W. Bradford, of Atlanta, Ga.; M. F. Claudy, of Birmingham; J. H. Collier, of Montgomery; S. A. Cruce, of Birmingham; J. A. Eaves, of Atlanta, Ga.; G. L. Giles, of Live Oak, Fla.; J. J. Hendricks, of Talladega; O. E. Jordan and T. H. Lauder, both of Atlanta, Ga.; M. A. McWilliams, of Auburn; J. J. Mooring, of Atlanta, Ga.; B. F. Moseley, of Auburn; T. F. Neighbors, of Goodwaters; J. J. Rams, of Atlanta, Ga.; J. V. Ward, of Birmingham; M. O. Williams, of Atlanta, Ga.; G. W. Wills, of Madisonville, Tenn.; and W. B. Wisdom and C. A. Wornock, both of Atlanta, Ga.

As assistants—C. T. Beacham, of Dexter, Ga.; C. L. Berk, of Ensley; W. H. Hoover, of Jasper; L. A. Faircloth, of Swansboro, Ga.; R. W. Payne, of Macon, Ga.; and W. H. Traylor, of Montgomery.

The next meeting of the board will be held May 15th, at Birmingham.

California Board.

In the report of the California Board of Pharmacy to Governor Gillett it is shown that during 1910 fifty-two arrests were made for alleged violations of the pharmacy law, forty-two of which resulted in conviction. One hundred and eighty-four persons were arrested for selling poisons without a prescription from a physician. These arrests resulted in 121 convictions, 36 compromises, 13 dismissals and 5 postponements of judgment.

Florida Board.

Out of fifteen applicants for registration examined by the Florida Board of Pharmacy at a meeting held January 23d and 24th, at St. Augustine, the following five persons were successful:

Louis Bas, of Orlando; George Bickings, of Palm Beach; J. C. Johnston, of Jasper; J. C. Matthews, of Jacksonville; and K. G. Oglesby, of Bartow.

The board amended its by-laws so as to require a minimum passing mark of 50 per cent., in any one subject. The issuing of temporary certificates was authorized.

The next meeting of the board will be held at Tampa, June 12th and 13th.

This being the annual meeting an election of officers occurred. The retiring officers were re-elected as follows: President, E. Berger, of Tampa; vice-president, Leon Hale, of Tampa; and secretary and treasurer, D. W. Ramsaur, of Palatka.

Kansas Board.

One hundred and fifty-five merchants' licenses were granted by the Kansas Board of Pharmacy during the quarter ending February 15th; four pharmacists were registered; to one person a temporary certificate was given, and four received duplicate certificates.

At the meeting held on the above date at Wichita the following graduates of recognized schools of pharmacy were registered without examination:

J. Gerkens, of Lawrence; E. R. Hess, of Ottawa; S. N. Nite, of Topeka; and Walter Sledd, of Sterling.

There were sixty-nine applicants to be examined for registration; of this number the following twenty-nine were successful:

I. R. Aber, of Mound Valley; H. P. Craft, of Wichita; L. H. Combs, of Herrington; B. H. Crocker, of Hoisington; H. C. Deatz, of Hutchinson; J. G. Durham, of Douglass; Margaret Dykes, of Wichita; W. A. Fish, of Humboldt; J. A. Follick, of Minneola; W. L. Johnson, of Newton; W. J. Laird, of Wichita; E. McLaughlin, of Kansas City; C. O. Morris, of Valley Center; Miss Lee D. Mulvaney, of Kansas City; B. R. Murphy, of Meade; T. E. Payne, of Kansas City; J. H. Pinney, of Dorrance; M. S. Poorman, of Arlington; R. W. Quackenbush, of Wichita; A. T. Richardson, of Topeka; F. H. Ricketts, of Springhill; R. I. Roby, of Stafford; F. Shoemaker, of Fort Scott; A. E. Soiseth, of Turner; Harry Venning, of Allen; Lillian A. West, of Kansas City; R. H. Williams, of Winfield; and A. W. Wilson and H. R. Wilson, both of Carney.

The next meeting will be held May 25th, at Topeka.

Pennsylvania's Proposed New Pharmacy Law.

One of the most voluminous bills ever considered by the Pennsylvania legislature is the measure designed to codify and make more stringent the laws of the State regulating the sale of drugs and the practice of pharmacy, introduced by Representative Hecht, of Philadelphia. The bill was prepared by S. L. Clements, attorney for the board of pharmacy, and has the approval of the pharmacal organizations of the State generally.

The bill provides for the establishment of "the Pennsylvania Drug Commission," composed of five of "the most skillful pharmacists in Pennsylvania who are not teachers or instructors in any college," who are to be appointed by the governor for five-year terms. From these members are to be elected a president, a secretary and a treasurer, the salary of the secretary, who is to be the executive officer, not to exceed \$3,000 per annum.

Should the bill become a law, proprietors of pharmacies and licensed stores must obtain annual licenses at a cost of \$1 each, and in each pharmacy there must be a copy of the Pharmacopoeia, of the National Formulary and, under certain conditions, of the American Homeopathic Pharmacopoeia.

The bill provides that examinations are to be held four times a year, applicants for license as pharmacists to have had five years' practical experience and be graduates of a recognized school of pharmacy. Assistant pharmacists are provided for. The New York law is copied with regard to the revocation of licenses, and to reciprocal licensure.

The anti-narcotic provisions of the bill are very stringent. Except in the case of preparations for external use and bona-fide medicinal preparations containing less than a stated amount, opium and its derivatives may be sold at retail only on prescriptions which are not to be refilled. Restrictions are also placed about the prescribing of narcotics and the illegal possession of these drugs is defined. Still more stringent are the restrictions relative to cocaine, its salts and analogues.

The character of the label for drugs of other than official strength is quite clearly set forth in the bill, which says that the label on such drugs must bear the statement "not of official strength." In other respects the misbranding features of the bill are similar to those of the federal food and drugs act.

This measure would repeal all other pharmacy laws at present on the statute books of the State.

The "patent medicine" bill of Representative E. H. Fahy, of Philadelphia, providing for the publication of the formula of proprietary medicines on the outside wrapper and label of the bottle, box or other container, has been so amended by its author as to provide that the act shall not apply to a registered druggist manufacturing his own specialties to be sold at retail from his own place of business.

One Million Dollars for the Philadelphia College of Pharmacy.

In order that the Philadelphia College of Pharmacy may erect and equip a suitable building to form one of a notable group of structures to be used for educational purposes, an alumnus of the college living in England has offered to donate \$1,000,000 to his alma mater. The city is constructing a new boulevard between the city hall and the Greene street entrance to Fairmount Park, and an effort will be made to induce a number of large educational institutions at present scattered throughout the city, to build along this thoroughfare on sites to be donated by the city. In discussing the matter Prof. Remington said:

"The present location of the college on Tenth street above Arch, although admirably suited for conditions ten years ago, has become surrounded by high business buildings and the fire risk has become immensely increased. The 15,000 books, constituting probably the most valuable collection of the kind in existence, are crowded into alcoves and shelves clear up to the ceiling of the library, and the overflow is stowed away in adjoining rooms until they too are nearly full.

"While there are many details to be worked out, we are up to the point where we have had plans prepared for a group of three buildings. One will be for administration purposes, another will be for the library, and the third for research work, all communicating. The cost will be not less than \$500,000, and it will take as much more to equip them. How long it will take to bring all the details to a satisfactory conclusion, it is impossible to say. Much de-

pends on the city and much upon our ability to raise the funds necessary for the cost and equipment of the building, but I expect in two, or possibly three, years to see the Philadelphia College of Pharmacy located out along the parkway on a site to be provided by the city between the city hall and Fairmount Park."

The name of the wealthy and generous alumnus has not been made public, but a number of those who have been wondering who he is recall the fact that Henry S. Wellcome, of Burroughs, Wellcome & Co., London, is a graduate of the college, and is reputed to have been very successful in the conduct of his business.

At a dinner given by Howard B. French, president of the college, to celebrate its ninetieth birthday, the members of the board of trustees, the faculty, the mayor of Philadelphia, heads of two sister colleges and several prominent representatives of the trade in Philadelphia, were present. On this occasion Mr. French, in the capacity of toastmaster, gave an interesting historical sketch of the college.

Mayor Reyburn emphasized the close relationship between the city's educational institutions and its general welfare, strongly advocating the centralizing of institutions of this class along the city's new boulevard so that they might derive all the benefits of close association, neighborly contact and ideal location.

Dr. J. W. Holland, dean of Jefferson Medical College, spoke of the close relation between pharmacy and medicine and mentioned some of the famous men in the sister professions who had attended both these venerable Philadelphia institutions. He referred to the fact that while Jefferson College was founded four years later than the Philadelphia College of Pharmacy, they graduated their first classes in the same year, 1826.

Brief addresses were also made by Henry F. Walton, president of the Medico-Chirurgical College, Prof. Joseph P. Remington, dean of the Philadelphia College of Pharmacy; Joseph L. Lemberger, of Lebanon, Pa., who succeeded the late Mahlon N. Kline as vice-president of the institution; Profs. Henry Kraemer, Samuel P. Sadtler and Frank X. Moerk.

Philadelphia Cocaine Pedler Sentenced to Jail.

Benjamin P. Ashmead, a United States drug inspector at the port of Philadelphia, has been convicted of selling cocaine illegally. The jury did not have to leave the box in order to agree upon a verdict.

After looking into the man's record and hearing pleas that sentence be suspended, Judge Carr sentenced him to serve a term of nine months in prison.

Ashmead is the inspector referred to by Christopher Koch in his statement before a congressional committee, reported in the CIRCULAR for February, page 71.

Pittsburg Anti-Cocaine Crusade.

The grand jury sitting at Pittsburg, Pa., in March, returned twenty-six indictments against druggists of that city charged by the Pennsylvania Board of Pharmacy with selling cocaine, as such or in nostrum "cures" of one sort or another. The city police officials are co-operating at every point with the pharmacy authorities and it is believed that the illegal sale of the drug will soon be effectually stamped out.

E. E. Szatmary, of Duquesne, who plead guilty to a charge of illegally selling cocaine was sentenced March 17th, to serve sixty days in jail.

Interprofession Fraternizing in Western Pennsylvania.

The druggists of Meadville, Pa., had as their guests at their annual banquet held March 8th, the matrons of the hospitals of the city and the members of the local medical society. Sociability was the entire motive. The address of the evening was by Dr. C. P. Woodring on "Impressions of Pharmacy and Medicine Abroad."

Wiley-Kelton Nuptials.

Dr. Harvey W. Wiley, chief of the bureau of chemistry, of the United States department of agriculture, and Miss Anna Campbell Kelton, an assistant in the library of congress, were married February 27th, at the home of the bride's mother in Washington.

News of the Pharmacy Boards.

List of Board Secretaries.

In the following list are to be found the names and addresses of the secretaries of the various boards of pharmacy of the country. When the date and place of the next meeting of a board are known they are given also.

Secretaries are requested to keep us informed as to dates and places.

ALABAMA—May 15th, at Birmingham. E. P. Galt, Selma.
ARIZONA—April 12th, at Phoenix. A. G. Hulett, Phoenix.
ARKANSAS—May 8th, at Little Rock. J. F. Dowdy, Little Rock.
CALIFORNIA—April 12th, at San Francisco. Louis Zeh, San Francisco.
COLORADO—S. L. Bresler, Denver.
CONNECTICUT—June 6th, at Hartford. J. A. Levery, Bridgeport.
DELAWARE—Albert Dougherty, Wilmington.
DISTRICT OF COLUMBIA—April 13th and 14th, at Washington. S. L. Hilton, Washington.
FLORIDA—June 12th and 13th, at Tampa. D. W. Ramsaur, Palatka.
GEORGIA—C. D. Jordan, Monticello.
IDAHO—April 11th, at Idaho Falls. J. M. Starrh, Shoshone.
ILLINOIS—F. C. Dodds, Springfield.
INDIANA—April 11th and 12th, at Indianapolis. W. H. Ruder, Salem.
IOWA—June 6th, at Des Moines. E. J. Moore, Des Moines.
KANSAS—May 25th, at Topeka. W. E. Sherriff, Ellsworth.
KENTUCKY—April 11th and 12th, at Louisville. J. W. Gayle, Frankfort.
LOUISIANA—May 9th to 11th, at New Orleans. F. A. Earhart, New Orleans.
MAINE—April 12th and 13th, at Augusta. F. W. Bucknam, Skowhegan.
MARYLAND—April 12th and 13th, at Baltimore. Ephraim Bacon, Roland Park.
MASSACHUSETTS—Every Tuesday between September 1st and July 1st, at Boston. P. J. McCormick, Boston.
MICHIGAN—E. J. Rodgers, Port Huron.
MINNESOTA—April 18th, at Minneapolis. C. T. Heller, St. Paul.
MISSISSIPPI—October 3d, at Jackson. L. H. Wilkinson, Greenwood.
MISSOURI—April 10th, at Kansas City. C. E. Zinn, Kansas City.
MONTANA—April 12th, at Butte. T. M. Kehoe, Billings.
NEBRASKA—A. V. Pease, Fairbury.
NEVADA—May 3d, at Reno. R. L. Prouty, Tonopah.
NEW HAMPSHIRE—F. H. Wingate, Nashua.
NEW JERSEY—April 20th, at Trenton. H. A. Jorden, Bridgeton.
NEW MEXICO—April 10th and 11th, at Albuquerque. A. J. Fisher, Santa Fe.
NEW YORK—May 24th and 25th, at New York, Albany and Buffalo. W. L. Bradt, Albany.
NORTH CAROLINA—July 7th, at Morehead City. F. W. Hancock, Oxford.
NORTH DAKOTA—June 20th, at Fargo. W. S. Parker, Lisbon.
OHIO—June 20th to 23d, at Columbus. F. H. Frost, Columbus.
OKLAHOMA—April 11th and 12th, at Oklahoma City. J. C. Burton, Stroud.
OREGON—C. G. Huntley, Oregon City.
PENNSYLVANIA—June 8th and 9th, at Pittsburg and Philadelphia. L. L. Walton, Williamsport.
RHODE ISLAND—May 2d, at Providence. J. E. Brennan, Pawtucket.
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The next meeting will be held May 25th, at Topeka.

Maryland Board.

The Maryland Board of Pharmacy is waging war upon those druggists who permit unregistered employees to perform pharmacists' duties in their stores. One druggist of Canton, a suburb of Baltimore, has been held under bail of \$500 to await the action of the grand jury; he is charged with leaving his store in charge of an unregistered clerk who compounded a prescription while alone.

Massachusetts Board.

Two examinations were held during the month of February by the Massachusetts Board of Pharmacy. Thirty-four candidates for registration were examined; eight were successful as pharmacists and nine as assistants. Their names follow:

As pharmacists—J. J. Barry, of Lowell; J. P. Barry, of Lynn; F. B. Chase, of Boston; N. L. Jean, of Arlington; A. T. Miller, Joseph Musman, and C. A. Papanti, all of Boston; and Daniel Reidy, Jr., of East Weymouth.

As assistants—D. J. Cavan, of Haverhill; J. H. Coakley, of Brockton; H. S. Cummings, of Quincy; J. F. Fagan, of Boston; C. W. Gibbs, of Providence, R. I.; A. M. McDermott, of Lowell; J. A. McGinty, of Holyoke; J. H. Moran, of North Adams; and C. A. Wells, of Salem.

Missouri Board.

At the meeting of the Missouri Board of Pharmacy held at Springfield, March 13th, there were seventy-seven applicants for registration. As a result of the examination forty-four secured pharmacists' license and eight were licensed as assistants. The successful ones are:

As pharmacists—V. A. Ashbridge, of St. Louis; C. B. Allen, of Shelby; B. Bardenwerper, of St. Louis; J. E. Boyd, of Sarcoxie; H. M. Carlisle, of Parma; H. E. Carter, of Licking; T. C. Dowles, of Kansas City; J. S. Elledge, of Lathrop; C. B. Ellis, of Kansas City; W. R. Gentry, of Independence; R. A. Greer, of Kansas City; A. B. Grier, of Strafford; W. A. Handley, of Edgerton; T. V. Harrington, of Kansas City; H. E. Harrison, of Plattsburg; R. F. Heidman, of New Haven; Everette Holmes, of St. Joseph; A. F. Hunt, of Buffalo; H. B. Jacobs, of Kansas City; W. L. Johnson, of Newton, Kan.; G. G. Kenbach, of Kansas City; W. W. Largent, of Portageville; C. J. Lempe, of New Cambria; W. L. Lierman, of Sedalia; D. A. McCollum, of Joplin; C. M. McConkey, of Lathrop; Paul McConnell, of Sarcoxie; C. J. McDonald, of Springfield; J. H. McKenna, of Joplin; C. R. Phifer, of Springfield; T. J. Phillips, of Joplin; W. W. Rodman, of Kansas City; William Roney, of St. Joseph; A. G. Ross, of Springfield; R. R. Sharp, of Topeka, Kan.; Frank Shoemaker, of Ft. Scott, Kan.; G. A. Shores, of Galt; A. E. Solseth, of Kansas City; E. H. Staton, of St. Louis; R. P. Stauffer, of Kansas City; E. E. Wassah, of Golden City; L. E. Westhoff, of La Grange; C. Y. White, of St. Louis; and J. J. Zumsteg, of Kirksville.

As assistants—Irl Bralt, of Sarcoxie; J. W. Burhaus, of Stoutland; Ernst Coday, of St. Louis; W. A. Goodnight, of Pleasant Hope; G. T. McKim, of Schell City; W. L. McQuarry, of Ash Grove; L. St. C. Shumate, of Reeds Springs; and Paul Van Evercarran, of Hannibal.

The next meeting of the board will be held April 10th, at Kansas City.

Five persons have recently been prosecuted by the board and fined for conducting drug stores contrary to law.

New Hampshire Board.

At the February meeting of the New Hampshire Board of Pharmacy out of seven persons applying for registration the following two were successful:

Z. A. Davis, of Dover; and L. N. Newton, of Manchester.

Pennsylvania Board.

The Pennsylvania Board of Pharmacy at a meeting held at Harrisburg, February 18th, examined 119 applicants for registration. Thirteen of these were successful as pharmacists and twenty-six as assistants. The names of the successful ones are:

As pharmacists—H. O. Dahlin, of Pittsburg; F. E. Eitner, of Easton; C. W. Greeninger, of Philadelphia; J. H. Henderson, of Kittanning; S. O. Jonkus, of Mahanoy City; C. H. Kline, Jr., of Philadelphia; J. P. Lengel, of Wayne; P. S. Pittenger, of Philadelphia; G. E. Ritchey, of Carlisle; F. G. Smith, of Westchester; I. S. Smith and R. L. Thomas, both of Pittsburg; and M. G. Waschko, of Mauch Chunk.

As assistants—J. A. Beaver, of Lock Haven; W. S. Brown, of Chambersburg; D. J. Brown, of West Hazleton; P. D. Coble, of Chambersburg; E. W. Colborn, of Philadelphia; R. R. Colley and X. K. Collmann, both of Wilkes-Barre; Lena De Gregoris, of Philadelphia; M. E. Engstrom, of Warner; J. M. Fry, of Lititz; H. F. Gerrity, of Pottstown; F. W. Hackett, of Bowdoinham; P. H. Jackson, of Blossburg; D. G. Kitzmiller, of Harrisburg; S. S. Kovacs, of Johnstown; A. F. McCormick, of Falls Creek; A. P. Macphree, of Philadelphia; W. W. Martin, of Shinglehouse; J. W. Murphy, of Curwensville; J. W. Parker, of Hawley; Robert Rabb, of Duncannon; E. F. Rouse, of Homestead; I. M. Rudminas, of Philadelphia; G. H. Stevens, of Rosemont; Leo Trambley, of Johnsonburg; and Brady Whitley, of Philadelphia.

The next meeting of the board will be held at Pittsburg and Philadelphia, June 8th and 9th.

Rhode Island Board.

At a meeting held March 7th, the Rhode Island Board of Pharmacy disposed of some routine matters and examined two candidates for registration; neither of these were passed.

The next meeting of the board will be held May 2d, at Providence.

Texas Board.

A regular meeting of the Texas Board of Pharmacy was held at Dallas, January 17th, seventy-seven candidates appearing for examination, about one-half of whom were successful. The ones who passed are:

As pharmacists—D. B. Blaine, A. O. Carden, P. D. Carroll, F. F. Chalfant, J. Y. Davidson, C. A. Duncan, A. E. Finlay, Jesse Grimes, W. M. Kerby, Rudolph Klein, G. C. Mangum, J. L. Mayes, L. A. Miles, L. Murphrey, J. A. Robertson, P. O. Roemer, H. O. Steglich, and C. D. Young, all of Dallas; E. L. Beckman, of Rowena; E. B. P. Black, of Sealy; W. E. Bratton, of Galveston; T. B. Bryden, of Marlen; J. G. Holland, of Ft. Worth; W. F. Humphrey, of New Waverly; Clifton Jarrett, of Ft. Worth; W. A. King, of Shreveport, La.; W. R. Manon, of Galveston; I. L. Pawelek, of Falls City; W. H. Ramsey, of Stephenville; J. E. Stone, of Jasper; G. G. Stripling, of Nacogdoches; O. L. Stuart, of Ft. Worth; L. E. Walker, of Columbus, O.; A. D. Wehinger, of Ft. Worth; C. A. Wilson, of Houston; M. L. Zacha, of Reinhardt; and Louis Zrubek, of Cistern.

As assistants—R. J. Blohm, of Ft. Worth; and J. H. Langhorne, of Henderson.

At this meeting the board decided to add bacteriology and physiology to the subjects embraced in the questions at future examinations. It was also decided that applications for examination must be in the hands of the secretary at least ten days prior to the meeting.

The next meeting of the board will be held at San Antonio, May 16th.

With the Women's Organization.

One of the most enjoyable occasions in the four years' existence of the Philadelphia chapter of the Women's Organization of the National Association of Retail Druggists was the birthday celebration February 16th and 17th. Representatives of a number of the sister chapters were present.

National President Mrs. Nellie F. Lee was "at home" to 150 callers on the afternoon of the 16th. On the following evening occurred the annual reception and dance at the Philadelphia College of Pharmacy building.

Mrs. Lee was the recipient of a silver belt-buckle in a W. O. N. A. R. D. design.

Wilmington (Del.) chapter, many of whose members had been present at the Philadelphia birthday party, entertained their Quaker City sisters at a reception and musical at the New Century Club, Wilmington, March 16th.

Baltimore Association.

Legislative conditions were discussed at length at the meeting of the Baltimore Retail Druggists' Association held February 18th. There seemed to be much dissatisfaction with the State food and drugs law as the criticisms of this measure were numerous.

The association elected the following officers: President, W. W. Cherry; vice-presidents, R. E. L. Williamson, Charles Morgan, and A. E. Muse; recording secretary, C. L. Meyer; corresponding secretary, Ephraim Bacon; and treasurer, W. M. Fouch.

Tri-Professional Fraternizing at Chicago.

Doctors, druggists and dentists totalling about 750 attended the "get-together" dinner given March 9th under the auspices of the Chicago Retail Druggists' Association with the assistance of the Chicago Medical Society and the Chicago Dental Society. President B. A. S. Hoelzer, of the C. R. D. A., acted as chairman, and Dr. A. H. Ferguson, president of the medical society, was toastmaster.

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Maryland Board.

The Maryland Board of Pharmacy is waging war upon those druggists who permit unregistered employees to perform pharmacists' duties in their stores. One druggist of Canton, a suburb of Baltimore, has been held under bail of \$500 to await the action of the grand jury; he is charged with leaving his store in charge of an unregistered clerk who compounded a prescription while alone.

Massachusetts Board.

Two examinations were held during the month of February by the Massachusetts Board of Pharmacy. Thirty-four candidates for registration were examined; eight were successful as pharmacists and nine as assistants. Their names follow:

As pharmacists—J. J. Barry, of Lowell; J. P. Barry, of Lynn; F. B. Chase, of Boston; N. L. Jean, of Arlington; A. T. Miller, Joseph Musman, and C. A. Papanti, all of Boston; and Daniel Reidy, Jr., of East Weymouth.

As assistants—D. J. Cavan, of Haverhill; J. H. Coakley, of Brockton; H. S. Cummings, of Quincy; J. F. Fagan, of Boston; C. W. Gibbs, of Providence, R. I.; A. M. McDermott, of Lowell; J. A. McGinty, of Holyoke; J. H. Moran, of North Adams; and C. A. Wells, of Salem.

Missouri Board.

At the meeting of the Missouri Board of Pharmacy held at Springfield, March 13th, there were seventy-seven applicants for registration. As a result of the examination forty-four secured pharmacists' license and eight were licensed as assistants. The successful ones are:

As pharmacists—V. A. Ashbridge, of St. Louis; C. B. Allen, of Shelby; B. Bardenwerper, of St. Louis; J. E. Boyd, of Sarcoux; H. M. Carlisle, of Parma; H. E. Carter, of Licking; T. C. Dowles, of Kansas City; J. S. Elledge, of Lathrop; C. B. Ellis, of Kansas City; W. R. Gentry, of Independence; R. A. Greer, of Kansas City; A. B. Grier, of Strafford; W. A. Handley, of Edgerton; T. V. Harrington, of Kansas City; H. E. Harrison, of Plattsburg; R. F. Heidman, of New Haven; Everette Holmes, of St. Joseph; A. F. Hunt, of Buffalo; H. B. Jacobs, of Kansas City; W. L. Johnson, of Newton, Kan.; G. G. Kenbach, of Kansas City; W. W. Largent, of Portageville; C. J. Lempe, of New Cambria; W. L. Lierman, of Sedalia; D. A. McCollum, of Joplin; C. M. McConkey, of Lathrop; Paul McConnell, of Sarcoux; C. J. McDonald, of Springfield; J. H. McKenna, of Joplin; C. R. Phifer, of Springfield; T. J. Phillips, of Joplin; W. W. Rodman, of Kansas City; William Roney, of St. Joseph; A. G. Ross, of Springfield; R. R. Sharp, of Topeka, Kan.; Frank Shoemaker, of Ft. Scott, Kan.; G. A. Shores, of Galt; A. E. Soiseth, of Kansas City; E. H. Staton, of St. Louis; R. P. Stauffer, of Kansas City; E. E. Wassah, of Golden City; L. E. Westhoff, of La Grange; C. Y. White, of St. Louis; and J. J. Zumsteg, of Kirkville.

As assistants—Irl Bralt, of Sarcoux; J. W. Burhaus, of Stoutland; Ernst Coday, of St. Louis; W. A. Goodnight, of Pleasant Hope; G. T. McKim, of Schell City; W. L. McQuarry, of Ash Grove; L. St. C. Shumate, of Reeds Springs; and Paul Van Evercarran, of Hannibal.

The next meeting of the board will be held April 10th, at Kansas City.

Five persons have recently been prosecuted by the board and fined for conducting drug stores contrary to law.

New Hampshire Board.

At the February meeting of the New Hampshire Board of Pharmacy out of seven persons applying for registration the following two were successful:

Z. A. Davis, of Dover; and L. N. Newton, of Manchester.

Pennsylvania Board.

The Pennsylvania Board of Pharmacy at a meeting held at Harrisburg, February 18th, examined 119 applicants for registration. Thirteen of these were successful as pharmacists and twenty-six as assistants. The names of the successful ones are:

As pharmacists—H. O. Dahlin, of Pittsburg; F. E. Eitner, of Easton; C. W. Greeninger, of Philadelphia; J. H. Henderson, of Kittanning; S. O. Jonkus, of Mahanoy City; C. H. Kline, Jr., of Philadelphia; J. P. Lengel, of Wayne; P. S. Pittenger, of Philadelphia; G. E. Ritchey, of Carlisle; F. G. Smith, of Westchester; I. S. Smith and R. L. Thomas, both of Pittsburg; and M. G. Waschko, of Mauch Chunk.

As assistants—J. A. Beaver, of Lock Haven; W. S. Brown, of Chambersburg; D. J. Brown, of West Hazleton; P. D. Coble, of Chambersburg; E. W. Colborn, of Philadelphia; R. R. Colley and X. K. Collmann, both of Wilkes-Barre; Lena De Gregoriis, of Philadelphia; M. E. Engstrom, of Warner; J. M. Fry, of Lititz; H. F. Gerrity, of Pottstown; F. W. Hackett, of Bowdoinham; P. H. Jackson, of Blossburg; D. G. Kitzmiller, of Harrisburg; S. S. Kovacs, of Johnstown; A. F. McCormick, of Falls Creek; A. P. Macphee, of Philadelphia; W. W. Martin, of Shinglehouse; J. W. Murphy, of Curwensville; J. W. Parker, of Hawley; Robert Rabb, of Duncannon; E. F. Rouse, of Homestead; I. M. Rudminas, of Philadelphia; G. H. Stevens, of Rosemont; Leo Trambly, of Johnsonburg; and Brady Whitley, of Philadelphia.

The next meeting of the board will be held at Pittsburgh and Philadelphia, June 8th and 9th.

Rhode Island Board.

At a meeting held March 7th, the Rhode Island Board of Pharmacy disposed of some routine matters and examined two candidates for registration; neither of these were passed.

The next meeting of the board will be held May 2d, at Providence.

Texas Board.

A regular meeting of the Texas Board of Pharmacy was held at Dallas, January 17th, seventy-seven candidates appearing for examination, about one-half of whom were successful. The ones who passed are:

As pharmacists—D. B. Blaine, A. O. Carden, P. D. Carroll, F. F. Chalfant, J. Y. Davidson, C. A. Duncan, A. E. Finlay, Jesse Grimes, W. M. Kerby, Rudolph Klein, G. C. Mangum, J. L. Mayes, L. A. Miles, L. Murphrey, J. A. Robertson, P. O. Roemer, H. O. Steglich, and C. D. Young, all of Dallas; E. L. Beckman, of Rowena; E. B. P. Black, of Sealy; W. E. Bratton, of Galveston; T. B. Bryden, of Marlen; J. G. Holland, of Ft. Worth; W. F. Humphrey, of New Waverly; Clifton Jarrett, of Ft. Worth; W. A. King, of Shreveport, La.; W. R. Manon, of Galveston; I. L. Pawelek, of Falls City; W. H. Ramsey, of Stephenville; J. E. Stone, of Jasper; G. G. Stripling, of Nacogdoches; O. L. Stuart, of Ft. Worth; L. E. Walker, of Columbus, O.; A. D. Wehinger, of Ft. Worth; C. A. Wilson, of Houston; M. L. Zacha, of Reinhardt; and Louis Zrubek, of Cistern.

As assistants—R. J. Blohm, of Ft. Worth; and J. H. Langhorne, of Henderson.

At this meeting the board decided to add bacteriology and physiology to the subjects embraced in the questions at future examinations. It was also decided that applications for examination must be in the hands of the secretary at least ten days prior to the meeting.

The next meeting of the board will be held at San Antonio, May 16th.

With the Women's Organization.

One of the most enjoyable occasions in the four years' existence of the Philadelphia chapter of the Women's Organization of the National Association of Retail Druggists was the birthday celebration February 16th and 17th. Representatives of a number of the sister chapters were present.

National President Mrs. Nellie F. Lee was "at home" to 150 callers on the afternoon of the 16th. On the following evening occurred the annual reception and dance at the Philadelphia College of Pharmacy building.

Mrs. Lee was the recipient of a silver belt-buckle in a W. O. N. A. R. D. design.

Wilmington (Del.) chapter, many of whose members had been present at the Philadelphia birthday party, entertained their Quaker City sisters at a reception and musical at the New Century Club, Wilmington, March 16th.

Baltimore Association.

Legislative conditions were discussed at length at the meeting of the Baltimore Retail Druggists' Association held February 18th. There seemed to be much dissatisfaction with the State food and drugs law as the criticisms of this measure were numerous.

The association elected the following officers: President, W. W. Cherry; vice-presidents, R. E. L. Williamson, Charles Morgan, and A. E. Muse; recording secretary, C. L. Meyer; corresponding secretary, Ephraim Bacon; and treasurer, W. M. Fouch.

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Druggists Repudiate a Newspaper Lie.

An editorial article, top of column, large headline in regular editorial style, and all, appeared in a recent issue of the Fort Madison (Iowa) *Evening Democrat*, the gist of which was that a "local druggist is authority for the statement," etc., the "statement" being a thinly disguised advertisement of a proprietary article. Only last month (page 122) the CIRCULAR had something to say about deceptive advertisements of the nature of the one now under consideration. It seems that the druggists of Fort Madison are not dependent upon any law-making body to defend them from the kind of thing mentioned. They have a quicker way of setting themselves right with the public. Next day after the publication of the article in question, there appeared in the same paper the following notice:

The undersigned local druggists hereby deny the statement, published as editorial or reading matter in the *Evening Democrat* of March 3d, 1911. Such deceptive advertisements are repudiated by all honorable druggists.

Geo. H. Schafer & Co.

Axt Drug Co.

McKibben Drug Co.

Haver & Vincent.

Santa Fe Pharmacy.

By A. H. Stempel, Mgr.

Representing all the drug stores of Fort Madison, Iowa.

Just how the editor and publisher of the *Democrat* relished publishing a statement which, in effect, said that they had lied, and lied for money, for the purpose of misleading their readers, does not appear.

Warning Against Pedlers of Morphine Tablets.

Parke, Davis & Co., of Detroit, Mich., point out that manufacturing pharmacists often lose by theft considerable quantities of tablets containing narcotic drugs. In this connection they report that a man described as being about 5 feet 10 inches in height, having light brown hair, and wearing a light gray overcoat, who seemed to know the price of morphine, cocaine, etc., called on the Hort-Schaeffer Drug Company, of Omaha, Neb., about January 23d, and tried to sell 5,000 Parke, Davis & Co.'s hypodermic tablets No. 26, at \$5 per thousand. He said he had sold 30,000 already and had 5,000 more to sell. He refused to call again to see Mr. Hort. When the clerk tried to get the package number the stranger took back the tablets, remarking: "If you don't want them o. k., I can sell them without any trouble." He claimed to be from the East—either New York or Philadelphia—and said he sold different things at different times, and that now was the "time to get in easy as morphine, etc., was going up all the time."

Dean Oldberg to Retire.

The school of pharmacy of Northwestern University, Chicago, will celebrate its twenty-fifth anniversary April 12th. One of the features of the occasion will be a banquet at the Hotel Sherman.

In conjunction with this celebration, the faculty, alumni and students of the school have planned certain exercises in honor of Prof. Oscar Oldberg, who will then complete his twenty-five years of service as dean of the school, and retire from active teaching, the condition of his health requiring that he reside in a different climate during the winter.

The new officers of the Louisville (Ky.) Retail Druggists' Association are: President, J. J. Sieberg; vice-president, H. H. Bertelkamp; secretary, J. G. Krull; and treasurer, William Voteller. Simon N. Jones declined re-election to the office of president after having served in that capacity for twenty years.

Twenty-odd registered clerks of Racine, Wis., have organized the Racine Drug Clerks' Association with social and commercial objects. The following officers were elected: President, Charles Seyfurth; vice-president, Frank Weissse; secretary, Edward Schweitzer; and treasurer, J. Bittner.

New officers of the Baltimore Drug Exchange are: President, Henry F. Baker; secretary, Willoughby M. McCormick; treasurer, Dr. A. R. L. Dohme; executive committee, Frank G. Baily, J. Emory Bond, Alfred E. Mealy, A. C. Meyer and Parker Cook.

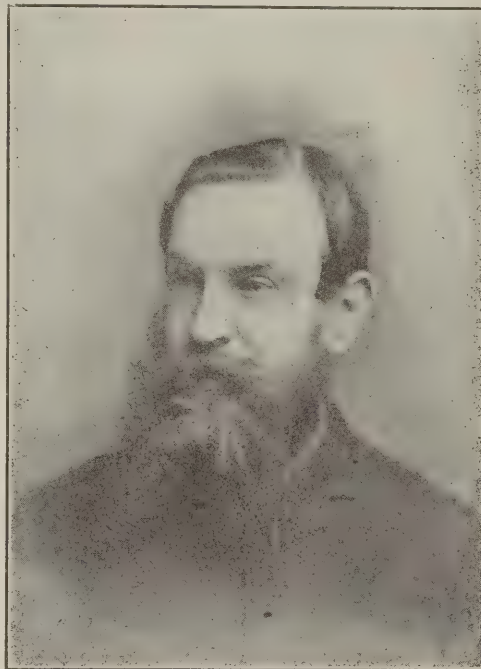
J. B. Webb, of DeWitt, Ia., treasurer of the Iowa Pharmaceutical Association for the past twenty-three years, has retired from business because of failing health.

Obituaries.

JOHN ATTFIELD.

The announcement of the death in London of Prof. John Attfield, one of the leading authorities on pharmaceutical chemistry, was received at this office by cablegram March 20th. Prof. Attfield enjoyed a high reputation in chemical and pharmaceutical circles in this country, and his works were recognized as a standard in many colleges and institutions. During the last few years his health had been impaired and he had retired from active work.

Dr. Attfield was born in Barnet, Herts, England. He received his education at his native place, entering the Pharmaceutical Society's school at the age of fifteen. He was first prize-man in all subjects in 1853 and 1854, and in the latter year became demonstrator of chemistry at St. Bartholomew Hospital, which place he retained until 1862. During this period he published the results of a number



JOHN ATTFIELD.

of researches on various chemical and pharmaceutical subjects, which secured for him election as Fellow of the Royal Society. He was then elected to the professorship of practical chemistry in the School of Pharmacy of the Pharmaceutical Society, in which he remained until 1896. He was one of the originators of the British Pharmaceutical Conference, which had for its object original scientific researches in connection with drugs, in 1863, its senior secretary from 1863 to 1880 and its president in 1882, 1883 and 1884. He was also president of the Herts National Historical Society from 1885 to 1887, and was one of the founders and for nine years a member of the council of the Institute of Chemistry. He held honorary membership in twenty-three societies and colleges of pharmacy in Europe and the United States.

Dr. Attfield's best known work is the manual of Pharmaceutical Chemistry, which is still in use in most schools of pharmacy. He was also author of lectures on the Relation of the British Pharmacopœia to Research, in 1864, and an improved Chemical Nomenclature for British and other Pharmacopœias, in 1871 and 1874. He was one of the three editors of the British Pharmacopœia of 1885, and was editor of two works on addenda to that Pharmacopœia in 1890 and 1898, as well as editor of the Colonial Addendum in 1900. He was the originator and maker of annual reports on the progress of pharmacy, and to his influence was partly due the union of pharmacists with physicians in the completion of the British Pharmacopœia in 1888.

Dr. Attfield for many years had a very large practice as a consulting and analytical chemist, and was frequently engaged as an expert in litigations on chemical subjects. He was a man of attractive personality and was always to

the front in upholding the standards of pharmacy. On his retirement from the professorship of chemistry in the School of Pharmacy his old pupils and assistants all over the world united in presenting him a service of plate and a handsome album containing their autographs. He was especially popular in Chicago for his aid in setting the college of pharmacy there on its feet after the great fire.

G. G. MINOR.

G. G. Minor, president of the Owens & Minor Drug Company, Ltd., of Richmond, Va., died at his home in that city February 27th. Mr. Minor was born at Richmond, December 3d, 1848, and spent the greater part of his life there. He started in business when quite young at Charlottesville, Va., as a clerk in a drug store. Then he entered the employ of the old Bodeker Drug Company, at Richmond, and from there he moved to the Powers-Taylor Drug Company, with whom he was employed until some twenty-eight years ago, when he went into business for himself in partnership with O. O. Owens.

JACOBUS H. VAN'T HOFF.

Prof. Jacobus Henricus van't Hoff, of the University of Berlin, the famous Dutch chemist and a Nobel prize winner in 1901, died at Berlin March 2d.

Prof. van't Hoff was born at Rotterdam in 1852, and received his education at the universities of Leyden, Bonn, Paris and Utrecht. He became a teacher in the veterinary school at Utrecht in 1876, moved to Amsterdam University in 1878, and to Berlin in 1896.

Following are recently reported deaths of other persons in the pharmaceutical world:

WILLIAM D. BANNARD, of Manistee, Mich.; December 30th, aged forty-five years.

GEORGE W. BROOKS, of Brooklyn, N. Y.; March 3d, aged seventy-four years.

WILLIAM BRUGMA, of Grand Rapids, Mich.; February 23d, aged seventy-two years.

W. H. BUNCH, of Beloit, Kansas; aged sixty years.

FRANK C. DAVIS, of Philadelphia, Pa.; January 11th.

FRANK DORSEY, of Baltimore, Md.; February 22d, aged fifty-six years.

GEORGE W. FORSYTHE, of Natrona, Pa.; February 23d; aged fifty-two years.

CHARLES GESICK, of Oklahoma City, Okla.

CHAUNCEY GILLET, of San Francisco, Cal.; March 8th.

HENRY J. GOLDING, of Corinne, Mass.; January 23d.

G. F. GOLDSBY, of Amite City, La.; February 17th, aged forty-two years.

F. M. GOODING, of Wilmington, Del.; March 19th, aged sixty-four years.

ROY L. GREER, of Portland, Ore.; February 24th.

ANDREW JEFFREY, of Toronto, Canada; February 25th, aged sixty-three years.

MAX KLEMCKE, of this city, March 5th.

LOUIS KLINZING, of Rochester, N. Y.; February 21st.

SAMUEL S. MARCY, of Cape May, Pa.

WILLIAM ERNEST MAYHEW, of San Francisco, Cal.; February 23d.

S. K. MORLEY, of Austin, Texas; March 12th, aged sixty-six years.

MAURICE MORRISSEY, of Morristown, N. J.; February 23d, aged seventy-four years.

CHARLES F. NIEDRINGHAUS, of St. Louis, Mo.; March 16th.

DANIEL F. O'CONNELL, of this city, February 18th, aged fifty-four years.

CHARLES W. PERRY, of Natick, Mass.; February 13th, aged fifty-one years.

CHARLES RIDGEWAY, of Yellow Springs, Ohio; aged seventy-four years.

Dr. FENWICK ROBERTSON, of Pikesville, Ind.; aged eighty-one years.

JOHN G. SCHAUFFERT, of Belleville, Mo.; March 8th.

EDWARD V. SEEBER, of Watertown, N. Y.; February 15th, aged sixty-five years.

SAMUEL S. SEELEY, of Bath, N. Y.; March 20th, aged seventy-seven years.

STANLEY G. SMITH, of Harrisburg, Pa.; January 1st, aged thirty-three years.

JOSEPH NAGLEE STEEL, of Brooklyn, N. Y.; February 23d.

A. C. TAYLOR, of Vineland, N. J.; March 22d, aged eighty-six years.

SAMUEL R. TILTON, of Catlin, Ill.

EDWARD WALTZ, of this city, March 14th, aged fifty-nine years.

J. HARRY WATSON, of Perry, N. Y.; March 16th, aged fifty-four years.

CHARLES WENKEL, of Ione, Cal.; March 14th, aged thirty-nine years.

JAMES A. WHITE, of Youngstown, Ohio; March 11th, aged fifty-five years.

JOHN A. WILLISON, of Terre Haute, Ind.; aged fifty-eight years.

Dr. MAURICE JOHN WHITE, of Burlington, Vt.; March 2d, aged forty-seven years.

Dr. Friedrich Engelhorn, proprietor of the business of C. F. Boehringer & Soehne, Waldorf-Manheim, Germany, died recently at the age of fifty-five years.

H. H. Deakyne, of Atlantic City, N. J., has the sympathy of his many friends because of the death of his mother at Clayton, Del., March 14th.

Just before the expiration of the sixty-first congress, the Mann public health bill passed the lower branch of that body, too late, however, for the senate to take action on it.

The Government Not So Slow.

Referring to the statement made in the CIRCULAR for last month in connection with the progress of work on the ninth revision of the Pharmacopœia, that the digests of criticisms prepared by the United States public health and marine-hospital service would probably not be completed until after the publication of the new Pharmacopœia, it may now be said that the government bureau was not requested to undertake the work of preparing these digests until three or four years after the issuance of the eighth revision of the Pharmacopœia, and that since that time it has given a good account of itself.

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THE DRUGGISTS CIRCULAR

A Practical Journal of Pharmacy and General Business Organ for Druggists

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Exit the Direct-Contract Plan.

There seems to be an impression on the minds of at least a considerable portion of the public, lay and pharmaceutical, caused by a recent decision of the supreme court, that hereafter there can be no legal plan by which a manufacturer of a proprietary article—drug or food—may protect the selling price of his goods. This impression is not a wholly correct one, for in his dissenting opinion Justice Holmes pointed out a way in which prices may be protected. This learned jurist said that by making the retail dealer an agent in law as well as in name, and retaining the title to the goods until they left the hands of the retailer, the manufacturer could control prices.

The decision in question is that in the case of the Dr. Miles Medical Company against the John D. Parks & Sons Company. This case has been in the courts and before the drug world for several years. It was for the purpose of compelling the upholding of the direct-contract price which the complainant had fixed for its goods. Retailers as well as wholesalers were parties to the contracts which had been entered into direct with the complainant. Lower courts had held that this direct-contract plan of marketing proprietary articles was a combination in restraint of trade and illegal, and the complainant had finally brought the case to the supreme court. That tribunal of last resort has now sustained the lower courts, and the plan has been relegated to the scrap-heap.

In delivering its judgment in the case, the supreme court, speaking through Justice Hughes, reviewed the forms of contracts in detail, told how the defendant had refused to sign a contract and had obtained its supply of the Miles goods by inducing those who had signed, to disregard the restrictions placed upon them. That these goods had been consigned the bill failed to allege. The supreme court pointed out that the court below had considered the jobbers' contracts as an effort "to disguise the wholesale dealers in the mask of agency," and had regarded the wholesaler as the "general owner and engaged in selling for himself and not as a mere agent of another." In citing this view of the lower court Justice Hughes alluded to the frequent recurrence in the allegations of the plaintiff's bill of such words as "sold" and "sale." As to the retailers' contract, he said that it "is clearly an agreement looking to sale and not to agency," and, "the so-called 'retail agents' are not agents at all, either of the complainant or of its consignees, but are contemplated purchasers who buy to sell again, that is, retail dealers." He quoted the de-

cision of Judge Lurton, in the Hartman case (reported in the CIRCULAR for April, 1907, page 332, and editorially commented upon in the same issue, page 290), in which that authority had said that to call purchasers of direct-contract-plan goods "agents" was simply to juggle with words. Parenthetically it may be mentioned that Judge Lurton was considerably abused by some of those who wished to see a different decision from him in that case, and his knowledge of law and his opinion as to facts were questioned. However, President Taft has elevated him to the supreme court bench, although he did not sit with that court when it was considering the case now under discussion.

The fundamental contentions of the plaintiff, as summarized by Justice Hughes, were "(1) that the restrictions are valid because they relate to proprietary medicines manufactured under a secret process; and (2) that, apart from this, a manufacturer is entitled to control the prices on all sales of his own products." In disposing of these, the learned justice said that while the manufacturer of a patented article was entitled to certain privileges in return for the invention he had made, which would become public property at the expiration of his grant, the manufacturer of goods under a secret process was entitled to no such consideration. Reiterating a principle of law that often has been laid before the readers of the CIRCULAR, Justice Hughes said:

The complainant relies upon the ownership of its secret process and its rights are to be determined accordingly. Any one may use it who fairly, by analysis and experiment, discovers it. But the complainant is entitled to be protected against invasion of its right in the process by fraud or by breach of trust or contract. *Tabor vs. Hoffman*, 118 N. Y., p. 36; *Chadwick vs. Covell*, 151 Mass. 190. The secret process may be the subject of confidential communication and of sale or license to use with restrictions as to territory and prices. *Fowle vs. Park*, 131 U. S. 88.

In other words, the fact that the plaintiff happened to have a monopoly in the manufacture of its preparations did not give it a right to such monopoly, as would be the case with goods protected by patent.

As to the second question, whether the complainant, irrespective of the secrecy of its process, was entitled to control the sale of goods of its own manufacture, the court said that the basis of the argument appeared to be that as a manufacturer may make a certain article and sell it, or not, as he chooses, he therefore has a right to fix the price at which the purchaser may dispose of it. The court said that this argument was not sound. A general restraint upon alienation,

it said, was ordinarily invalid. Again quoting Judge Lurton in the Hartman case, Justice Hughes said that such restraints were "generally regarded as obnoxious to public policy, which is best subserved by great freedom of traffic in such things as pass from hand to hand." Judge Lurton has pointed out that in *Coke upon Littleton* we read that if a man be possessed of a horse and "give his whole interest or property therein, upon condition that the donee or vendee shall not alien the same, the same is void, because his whole interest and property is out of him, so as he hath no possibility of reverter; and it is against trade and traffic and bargaining and contracting between man and man."

Citing its own decision in the copyrighted book case, with which CIRCULAR readers are more or less familiar, the court said that a manufacturer could not by rule and notice, in the absence of contract or statutory right, even though the restrictions be known to purchasers, fix prices for future sales.

The court quoted with approval the following: "The public have an interest in every person's carrying on his trade freely; so has the individual. All interference with individual liberty of action in trading, and all restraints of trade of themselves, if there is nothing more, are contrary to public policy, and therefore void. That is the general rule. But there are exceptions." It could not see that the present case was one of these exceptions, but held:

Agreements or combinations between dealers, having for their sole purpose the destruction of competition and the fixing of prices, are injurious to the public interest and void. They are not saved by the advantages which the participants expect to derive from the enhanced price to the consumer. . . . The complainant's plan falls within the principle which condemns contracts of this class. It, in effect, creates a combination for the prohibited purposes. No distinction can properly be made by reason of the particular character of the commodity in question. It is not entitled to special privilege or immunity. It is an article of commerce and the rules concerning the freedom of trade must be held to apply to it. . . . Nor does the fact that the margin of freedom is reduced by the control of production make the protection of what remains, in such a case, a negligible matter. And where commodities have passed into the channels of trade and are owned by dealers, the validity of agreements to prevent competition and to maintain prices is not to be determined by the circumstances whether they were produced by several manufacturers or by one, or whether they were previously owned by one or by many. The complainant having sold its produce at prices satisfactory to itself, the public is entitled to whatever advantage may be derived from competition in the subsequent traffic.

The questions involved were carefully considered and the decision reviewed by Judge Lurton in delivering the opinion of the circuit court of appeals in *Park vs. Hartman*, supra, and, in following that case, it was concluded below that the restrictions sought to be enforced by the bill was invalid both at common law and under the act of congress of July 2d, 1890. We think that the court was right.

In this manner did the court decide against the complainant under both the common law and the statutes.

In his dissenting opinion Justice Holmes agreed with the rest of the bench that the interest of the public was the thing to be conserved, but thought the

way to do this was to let the complainant carry out its own plan. He thought that the value and importance to the public of free competition as a means of fixing a fair price on commodities were greatly exaggerated. "I cannot believe," he said, "that in the long run the public will profit by this court permitting knaves to cut reasonable prices for some ulterior purpose of their own and thus to impair, if not to destroy, the production and sale of articles."

As to the effect of the decision it may be said that the trade was prepared for it by the disposition of this and similar cases in the lower courts several years ago. It does not mean that price cutting will again become rampant. The folly of price wars has so impressed itself upon the minds of the manufacturing, wholesale, and retail trades that no such contest is likely to gain much headway during the lifetime of the present generation. We have realized the losses which price wars entail, and our experience has shown us the futility of endeavoring to build up trade by cutting off our own noses to spite the faces of our competitors.

Speaking for the wholesale trade and as the recognized although unofficial organ of the National Wholesale Druggists' Association, the *Oil, Paint and Drug Reporter* says of the decision: "Wholesalers and jobbers realize the absolute need for stability of prices in proprietary articles, and we believe they will continue to maintain the wholesale prices named in the lists of manufacturers, although there may be no contract or agreement to that effect. There is no doubt about the right of a manufacturer to refuse to sell or consign goods to anyone he chooses to keep off his books." This calls to mind the fact that in another Miles case (reported in the CIRCULAR for August, 1909, page 421) Justice Lanning of the United States circuit court quoted Judge Archbald, who, in the Loder case, had said: "Undoubtedly the originator and compounder of a proprietary medicine may shape his own policy, and sell or withhold from selling, as he pleases, according to supposed self-interest or whim, fixing prices and naming the terms and conditions at and upon which alone he will do so, refusing to those who will not comply. And so far as this is confined to his own goods, and pursued by independent and individual action, it cannot be challenged."

N. A. R. D. Notes, owned and published by the National Association of Retail Druggists, which organization was the means of forcing price-restriction plans upon the manufacturing and wholesale branches of the trade in general, in commenting upon the present turn of affairs, admonishes its readers to "keep a stiff upper lip," saying that it is glad the question is settled and out of the way. It sees in the decision "something of value to the price-protection movement rather than a blow which will disintegrate it." Now that it has been made clear what may not be done, says *Notes*, those who wish to map out a price-protection campaign are in a better position than ever before to proceed along lines which will lead to results.

It Pays to Read a Good Drug Journal.

In a paper published in the CIRCULAR for May, 1903, page 100, Dr. Joseph L. Mayer deprecated the tendency of many druggists to fail to heed friendly advice, and their disposition to give slight attention to many things presented for their guidance in the pharmaceutical journals. He then told how some druggists by continued cleaning of the weights used in their prescription departments, in the course of time materially lighten those weights and thus run a risk of being arrested for dispensing some solution under strength, or of getting into complications with inspectors in other ways.

Evidently some of the druggists in this city did not take the time to read Dr. Mayer's article, or if they did, failed to heed the friendly advice given them therein, for the new and very active commissioner of weights and measures for this city has been inspecting the weights found in drug stores here and there, with the result that some of them have been reported light.

Those druggists who take the time to see what is in the journals devoted to their interests will find that time well spent, and those who do not—well, some of them have to spend a good deal more time in explaining things which could easily have been prevented, and are sometimes called upon to lay out money when their explanations are unsatisfactory. We sympathize with those who innocently break the law and are punished, and do what we can to reduce their number to the vanishing point.

The Witness Against New York Druggists.

Of the druggists in this city, good, bad and indifferent, whom a newspaper of the "yellow" variety has been hounding for the past month or more, one only, we believe, has so far been tried for his alleged offense, and he was acquitted. In defense of such men as are guilty of dangerous carelessness, or substitution or adulteration in the sale of drugs, we have nothing to say. The sooner the ranks of pharmacy are cleared of them, the better it will be for the public and for all competent and honest druggists. But for a newspaper to cast discredit upon an entire business by the use of the unfair methods so well understood and so frequently employed in the offices of the "yellow" press, is to put itself in the class of reprehensible evil-doers. Much harm has been done to individuals and to the public at large by the campaign to which we refer—a campaign in which truth and falsity, righteous condemnation and vilification were so interwoven that few not familiar with the subject could say how much of the crusade was justified by actual conditions and how much was "yellow" sensationalism—and it is to be hoped that some compensatory good will accrue to the careful and honorable men who constitute the main body of pharmacists. These latter are to be congratulated upon the fact that at a general meeting of the druggists of Greater New York, the action of the State board of pharmacy in coming to the aid of the district attorney in his efforts to bring the guilty to justice, was

approved. These things were chronicled in the CIRCULAR for last month.

One of the features of the investigation which no doubt impressed many newspaper readers not well informed in matters pharmaceutical as giving to it great weight was the eulogistic manner in which the paper in question introduced the chemist who had analyzed the drugs bought. Great stress was laid upon the fact that this chemist, Dr. Virgil Coblentz, was a professor in Columbia University; was a member of the revision committee of the United States Pharmacopoeia; and that somebody had said that he was one of the "few big men of the nation." This merely goes to show how dissociated facts may be used to mislead those who are unfamiliar with their true place in the history of events. That Dr. Coblentz is a professor in Columbia University, that he is a member of the committee of revision of the United States Pharmacopoeial Convention, and that he is one of the big men (in a class in which few men care to be placed) of the country, is true. But let us look further. He is a professor in Columbia University because of his professorship in the College of Pharmacy of the City of New York, which a few years ago entered into a working agreement with the university under which it became a department of the latter. He has not been a professor in Columbia University for twenty years as his "yellow" sponsor proclaims. It would seem, however, that Columbia University or the trustees of the college had tired of seeing testimonials concerning proprietary preparations printed in popular mediums over a name followed by the statement that the writer is a professor in the college or in the university, for a few weeks ago the resignation by Dr. Coblentz of his professorship in the college was accepted. So far there is no report to the effect that he has resigned from the committee of revision of the United States Pharmacopoeial Convention, although there has been some official dissatisfaction expressed at seeing the name of the committee tacked on to testimonials.

It is worthy of remark, too, that the name of the Professor was conspicuously absent from the list of delegates to the recent United States Pharmacopoeial Convention appointed by the College of Pharmacy of the City of New York. This conspicuity was emphasized by the fact that he had been a delegate from that body to the 1900 convention. Just why he was not re-appointed to represent the institution with which he was and had for long been identified, it might be indelicate to insist upon knowing.

This leaves the "big man" boast still to be looked into.

Prof. Coblentz's reputation as a chemist received a severe jolt in the American Pharmaceutical Association a few years ago. A sample of a chemical which he had certified contained ash, twenty-seven per cent., and ether-insoluble matter, thirty-seven and a fraction per cent., was found by a committee consisting of the late Prof. A. B. Prescott, Prof. Edward Kremers, and Prof. C. E. Caspari to contain less than three per cent. of ash and about five per cent. of ether-

insoluble matter. Prof. Coblenz endeavored to explain his report as to what he found in the preparation by saying that he had discovered twenty-seven one-hundredths of one per cent. of ash in the sample, and that "if any other figures were on the package it was a glaring error on the part of my assistant, who selected and marked the samples." An examination of the marking on the samples, however, revealed that the writing, even to the signature, "V. Coblenz," showed such a remarkable resemblance to specimens of the Professor's own chirography that those who compared them were unable to discover any difference. And in any case, twenty-seven one-hundredths of one per cent. is a long way from three per cent.

These are some of the things that have gone on the records of American pharmacy about a man who was selected for his part in this crusade, which has many more or less disreputable features, on account of the high positions he holds, his eminence as a chemist, and his unimpeachable credibility as a witness! These are excerpts from the record of the man whose testimony as to the percentages of drugs found in mixtures is depended upon to deprive citizens of reputations they have been all their lives in building up, as well as of their property, and perhaps even of their liberty!

A Branch of the Drug Business which Is Opposed to Public Policy.

Looking at the matter purely as a legal one, the supreme court of the United States has decided that the direct-contract plan of controlling the prices of proprietary goods is unenforceable. This fact was mentioned briefly in the CIRCULAR for last month, and the decision is commented upon editorially in this issue. The supreme court did not consider the merits of the medicines, whose sale, and the attempts to control which, gave rise to the legal action. Other courts, however, have done this, and if all such tribunals had presiding over them men of the type of Judge James R. Macfarland, of Pittsburg, we should perhaps see less of the time of our judiciary taken up in adjudicating differences growing out of the sale of nostrums.

In the case of the Miles Company against May (see the CIRCULAR for April, 1906, page 143), Judge Macfarland found, as conclusions of law, that the advertisements of the Miles Company were contrary to the statute against indecency in advertising; that the false statements of the plaintiff barred its action; and that the business of the plaintiff was contrary to public policy. He said: "On further consideration it is our opinion that the public health requires protection against these preparations and that the vender of remedies of unknown ingredients advertised and sold as remedies for disease should not be aided by courts of equity. If he sees fit to keep them a 'trade secret' and to persuade the public to 'dose' with his mysteries, let him not come into chancery. . . . The attempt to diagnose cases of heart disease, for example, without a physical examination cannot be too severely reprobated. . . . For one sick to diagnose his own

case is the height of folly, yet this plaintiff advises the poor deluded victim to pass upon subjects often baffling the highest medical skill, to settle the nature of the disease, and to then take 'Dr. Miles' nervine' or 'heart cure' or some other high sounding preparations of unknown ingredients, recommended in glowing testimonials. . . . The enormous business done by the proprietors of medicines and the serious menace which it is to the health and lives of the public, requires us to scrutinize carefully the ground upon which the plaintiff stands, and as it has shown that it belongs to the reprehensible class, we decline to grant the decree." It should be noted that Judge Macfarland held that as a matter of law the plaintiff would have been entitled to the relief sought but for the fact that it came into court with what the court, as just set forth, regarded as "unclean hands."

In speaking of the circuit court decision in the Hartman case four years ago, the CIRCULAR said that it was one which should help pharmacy, as it might lead to a cessation of the "pitiful task of 'boosting' disreputable nostrums."

The retail drug trade has many heavy loads to carry at best; it should not unnecessarily handicap itself by appearing before the public as a supporter and defender of the makers of nostrums whose sale is regarded by a chancellor in equity as "contrary to public policy."

Druggists and the Newspapers.

Two paragraphs quoted below from an editorial article in the CIRCULAR for March, 1901, are just as timely now as they were ten years ago, as, indeed, the whole article is. The reason the daily newspapers in the large cities are ever ready to say a slurring word about the druggist and never a word except of praise about the large department stores, is not hard to find.

We are glad that we have a personal acquaintance with a lot of druggists whom we consider respectable citizens, for if we did not know any of them personally the newspapers would force us to the conclusion that they were allowed at large merely because there had been no means devised by which their places in the community could be properly supplied.

But the newspapers cannot keep the public and the druggist apart, and so their lies, their innuendoes, and their parading of the black sheep in blacker type, is of little avail.

The context showed that what we meant by "little avail" was, little avail in making the public believe that all druggists were shady characters.

COLLEGE OF PHARMACY GRADUATION is a good thing, but it does not seem quite to do away with the necessity for board examinations. Two of our States have "prerequisite" laws which require that before a candidate can qualify for board of pharmacy examination he must be graduated by a "recognized" college. These two States are Pennsylvania and New York. At the examination held by the board of the first-named State, February eighteenth, one hundred and nineteen graduates of recognized colleges of pharmacy were candidates for license, of which number, thirteen passed as pharmacists and twenty-six as assistants. The same month the new board of phar-

macy appointed by the educational authorities of this State held its first examination. The total number of candidates examined was seventy, and we understand that considerably over half of them applied for certificates as pharmacists, only fifteen of the latter being successful. As bad as New York's showing is, on a percentage basis, it is far from being as bad as her sister State's. What kind of pharmaceutical education can it be that our young men and women receive during their two or three years at college, if, when they are fresh from the class rooms and quizzes only one in every three or four or half a dozen or more is able to pass a board examination? Or, what kind of a board examination are they expected to pass? Our colleges are supposed to teach their students what the latter should know in order to follow the profession of pharmacy. Our boards are supposed to ascertain whether or not the candidates for license they examine have learned a minimum of what it is necessary for them to know before they may be trusted to follow the profession of pharmacy. There is something wrong somewhere, and we pharmacists ourselves should find out what the trouble is and remedy it without waiting for some "yeller" or "muck-raker" in the lay press to lampoon, cartoon, excoriate and humiliate us for our shams, shortcomings or inconsistencies.

WHEN DAILY NEWSPAPERS BEGIN to discuss a more or less technical subject, the public is sure to be much "edified" and the technical man is apt to be either grieved or amused according to the humor he happens to be in. Referring to the direct-contract-plan decision of the supreme court, a daily newspaper writer delivers himself of this weighty opinion: "It would seem to be a reasonable assumption that if a retail druggist sells an article at a cut rate it is a matter which principally concerns the druggist and the purchaser. . . . The manufacturer in the meantime has been paid his own price for his product and has reaped his profit. That ought to be satisfactory to him and he should not undertake to dictate to the retailer the price at which the article shall be sold." All of which sounds very reasonable—to those who have not studied the subject. In actual practice, however, the interest of the manufacturer in maintaining the retail price of his medicinal specialty is greater than that of the retailer, for if there ceases to be a profit in the handling at retail of the specialty, the retailer will quickly turn his attention to something of a similar nature in which there is a profit, and Mr. Manufacturer, not Mr. Druggist, will be the loser. Manufacturers in all lines are realizing more and more the power wielded by the retailer, and are conducting their businesses accordingly.

ETHICS, ETHICAL and such words are not only shamefully over-worked but are frequently sadly abused. One might infer from much of the current literature that a drug store in which nothing is sold but supplies for the sick, no matter upon how low a moral plane it is conducted, is an "ethical" store, while another in which soda water, stationery and other side lines form the larger part of the stock is not "ethical," regardless of the fact that its proprietor is a man who is scrupulously honorable, just and considerate in all his dealings. As a matter of fact ethics are in and of the man, not the goods or the store. They are something like honesty and morality. Codes of ethics are bodies of rules intended to govern the

moral conduct of those to whom the rules properly apply. It is not ethical for a physician to prescribe a nostrum, because should he do so he not only is betraying the confidence which his patient reposes in his learning and integrity, but is furthering a deceitful and obnoxious business. Likewise, it is unethical for a pharmacist to dispense a drug that is not up to the standard or to sell a low-grade water bag for a high-grade price, although it is perfectly ethical for him to handle hardware and garden seeds, if the goods are what they should be. There are ethics in business just as much as there are in the professions, although the code may not be so strictly enforced in the former as in the latter; and a physician or pharmacist may present the outward appearance of being strictly professional while really being less ethical than an honest grocer.

TOO HARD ON THE NOSTRUM FAKERS it is almost impossible to be. Maybe sometimes some of our readers may feel that we are a bit severe on this class of our fellow citizens, but if such is the case their feeling is probably due to the fact that they are not so well acquainted with the ways of this class of industrious "workers" as we happen to be. The wiley nostrum faker is not in business for his own or anybody's else health; he is in business to make money, and the more of his medicine he can get the public to take and the longer he can get them to take it, the better he likes it. And when he can not "work" them any longer, he sells their names to one of his brother fakers and lets the brother "work" them a while, in the meantime getting a new list for his own use. Maybe the two fakers exchange lists; anything to catch the "sucker"—and "suckers" are not as numerous now, in the "patent"-medicine man's pond, as they once were. Just the other day we clipped the following from one of our city papers:

Wanted—Mailing list of probable buyers of patent medicines; rural districts; state terms and particulars. — Building, Washington, D. C.

The nostrum men know that the buying of what they term "patent medicines" is a manifestation on the part of the buyer of a certain kind of temperament, and that people who possess this kind of temperament are as likely to buy one nostrum as another. We all know that some people have a mania for taking any and every kind of medicine they can hear of, and for recommending that their friends and chance acquaintances do likewise. Just give the nostrum man the names of this kind of "suckers" and trust him to do the rest—"the rest" in such cases being the separation of the poor deluded one from his or her coin.

DRUG CLERKS' COST OF LIVING, like other people's cost of living, has gone up in the past few years—although, happily, a slight tendency in the opposite direction is noted just at present. What is a drug clerk's actual cost of living? Maybe he is a single man, maybe married. We assume that he is fairly well educated, moves in a good social circle, and has to make a presentable appearance both while on duty and off. What ought it to cost him to live? What should he pay for his board, his clothes, his books, pleasures, recreations and hobbies? He may live in a large city or in a country town; he may board with the proprietor's family or with his own; he may room over the store or at a hotel or own or rent a house; he may be a great lover of good literature and buy standard works and subscribe for the magazines; perhaps on his day off he sails a boat, plays golf,

rides a horse or a bicycle, or indulges in baseball. What does he have to spend? What should his clothes cost and how many should he have? Let the drug clerks answer these questions—or the proprietors, either, as to that. We want to hear from all sorts from everywhere. Their views reduced to print should make interesting reading. Names will be withheld upon request. Let the answers come.

COUNTER-PRESCRIBING AND SUPPLYING SIMPLE HOUSEHOLD REMEDIES are sometimes so close together that they seem to overlap and so make it nearly or quite impossible to say just where the dividing line between them lies. Of course no druggist should engage in the former, yet we feel sure that in spite of all we can say and do to discourage it, there will always be some who will allow their natural kindness of heart, their desire not to give offense, to induce them to go further in the direction of attempting to allay the ills of their customers than a strict compliance with the code of pharmaceutical ethics would allow. Still, we feel that by reminding druggists now and then of their duties, responsibilities and limitations with respect to this matter, we may do something to improve the status of pharmacy and aid in driving quackery out of the drug business, with which, unhappily, it is now so intimately associated in the minds of the public as to be considered by many as a necessary part of it.

DRUG CLERKS' SALARIES generally range from about twelve-and-a-half to twenty-five dollars a week. One drug clerk wrote to the CIRCULAR about his "weekly insult of eighteen dollars." The ministry is one of the "three learned professions" and some statistician has figured out that excluding those of the largest one hundred and fifty cities, the ministers of this country receive an average salary of five hundred and seventy-three dollars—less than twelve dollars a week. Of course, some of them get house rent free, a lot of gratuitous produce, and half rates at schools and on railroads, but most of them are settled men with families, men who have reached their goal, while drug clerks are usually young fellows who are simply in training for their life work. Practically all the successful retail druggists and a large proportion of the wealthy wholesalers went through the training that the drug clerks are now receiving.

DRUGGISTS HAVE "STOOD FOR" A LOT, but we believe nobody has ever said about them anything like this, taken from a newspaper report of a talk made by the New York commissioner of weights and measures, before a local woman's club: "Mr. Walsh told the women that they had no idea of the 'meanness, lowness, and rottenness'—not of other people's grocers and butchers, but of their own high-class tradesmen."

SATURATING THE HEAD WITH KEROSENE is recommended by the "editress" of a beauty column department as a remedy for nits. The treatment is certainly heroic and it seems that it should either kill or cure the cause of almost any trouble, from brain fever to nasal catarrh.

Newspapers tell of the death of a Yonkers woman the other day, caused by drinking wood alcohol in mistake for grain alcohol.

What does it profit a merchant to gain an argument and lose a customer?

Some Remarks on Adulteration, with Especial Reference to Buchu.

BY WILLIAM MANSFIELD, PHAR. D.

Since the enactment of the national food and drugs law, which gives to the Pharmacopœia added dignity and authority, examinations of crude and powdered drugs have been conducted with even greater care than heretofore. Investigations have shown that in some cases there has been an entire substitution of one drug for another, as, for example, ruellia or phlox for spigelia. Another form of adulteration, and one which is disquietingly common, is the addition to (or failure to separate from) an official drug an unofficial part of the drug plant. An example of this is seen in



Figure 1.

Adulterants of Buchu Stems.

Foreign twigs, grass, stems, etc., separated from the leaves and stems of buchu.

colocynth which has been powdered before the separation and rejection of its seed.

The substitution of ruellia and phlox for spigelia is due almost wholly to the lack of botanical knowledge possessed by the collectors, it being a well-known fact that there is little if any scientific collecting of drugs at the present time. This is due perhaps to the fact that the employment of labor more skilled, and consequently higher priced, would make the collecting of many drugs unprofitable commercially. I have not the least doubt, however, that could the collecting of drugs be directed scientifically, there would be no need to change the purity standards of the Pharmacopœia in certain specific cases; for instance, so as to allow 5 per cent. of clove stems in cloves, as has been proposed, and to allow stems in buchu leaves. Very often the amount of substitution of one plant part for another depends largely on the commercial value of the drug adulterated.

Buchu will perhaps illustrate this point as well as any of the official drugs. I might mention that in the last few years buchu has become less abundant, with a consequent rise in value from year to year. For-

merly the leaves were collected and sent to market with only traces of the stems present. To-day it is difficult to purchase buchu which does not contain

stems varying in amounts from 5 to 50 per cent. Such buchu, of course, does not conform to the official requirements, yet buchu adulterated with stems is imported and sold as an everyday matter. These facts tend to prove dishonesty rather than carelessness on the part of the collectors and dealers. It is argued in some quarters that the official standards must be changed to meet the trade conditions. To do this, it seems to me, would be a dangerous procedure if car-

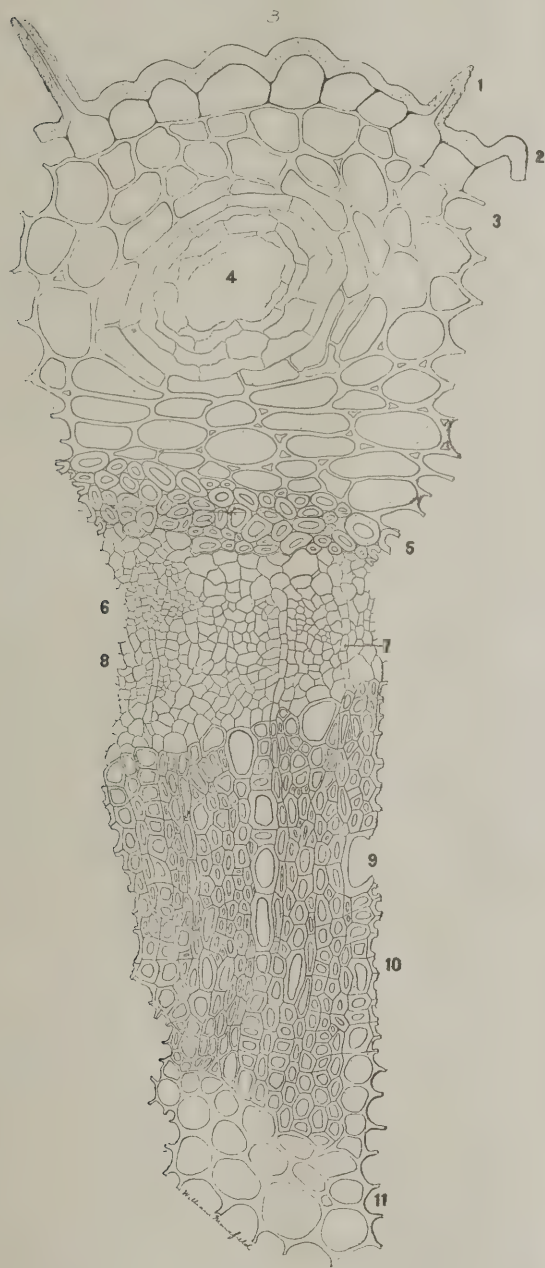


Figure 2.

Cross Section of Buchu Stem.

1. Trichome. 2. Wavy epidermis. 3. Cortical parenchyma. 4. Secretory cells and cavity. 5. A group of bast fibers. 6. Sieve cells. 7. Medullary ray. 8. Phloem parenchyma. 9. Conducting cells. 10. Wood fibers and wood parenchyma. 11. Pith parenchyma.

This is a drawing of a radial section of a buchu stem 1.6 millimeters in diameter, showing a few of the epidermal cells modified into thick-walled roughish unicellular trichomes (1). The remaining epidermal cells have a thick wavy outer wall (2). Beneath the epidermis are several rows of cortical parenchyma cells (3) which extend to the bast bundles and in which are found the secretory cavities with the thin walled secretory cells (4). The bast fibers (5) occur in groups, varying greatly in size; the walls are whitish and of variable thickness. Inside the bast fibers, the small irregular sieve cells (6) occur in groups, sur-

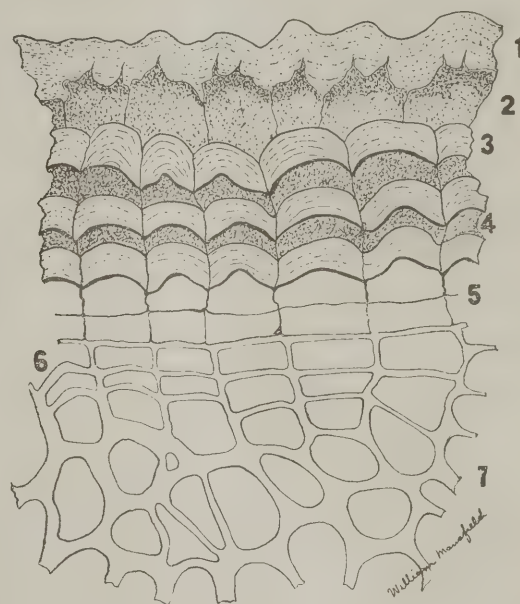


Figure 3.

Cross Section of Mature Buchu Stem.

1. Wavy epidermis. 2. Thin side-wall enclosing dark cell content. 3. Thick outer-wall of the cork cells. 4. Reddish brown cell contents of the cork cells. 5. Cork cambium. 6. Phelloderm. 7. Cortical parenchyma.

In this figure is seen the cork formation or secondary growth as seen in the older, larger buchu stems. The wavy epidermis (1) which is the primary epidermis and which has disappeared on many portions of the stem, has thin side-walls and dark cell contents (2). Next to the epidermal cells occur several rows of peculiar arched cork cells with thick white outer-walls (3) and reddish-brown cell contents (4). The cork cambium (5) is typical in form, and it has formed one or two layers of phelloderm cells (6) which have the same form as the cambium cells but with thicker walls. Next to the phelloderm occur the cortical parenchyma cells. The remaining structure of the mature stem is identical with that of figure 2.

ried too far. Before lowering the pharmacopœial standards, the cause of the additions of stems, etc., should be carefully considered. In many cases the changed medicinal value of the drug due to changes in standards can be determined only by investigation. Any lowering of standard will, to a certain degree, de-

rounded by the phloem parenchyma (8). The radially elongated cells of the medullary rays (7) extend outward from the xylem increasing in number in the outer portions of the wood, and extending nearly to the bast fibers. No distinct cambium layer is visible. The conducting cells (9) occur throughout the xylem surrounded by the wood fibers and wood parenchyma (10). The latter is not very abundant in buchu. The medullary rays border on the conducting cells and extend outward to the phloem. The pith parenchyma cells are nearly circular in outline and often show a perforated end-wall when a cell happens to be cut just above or below that point.

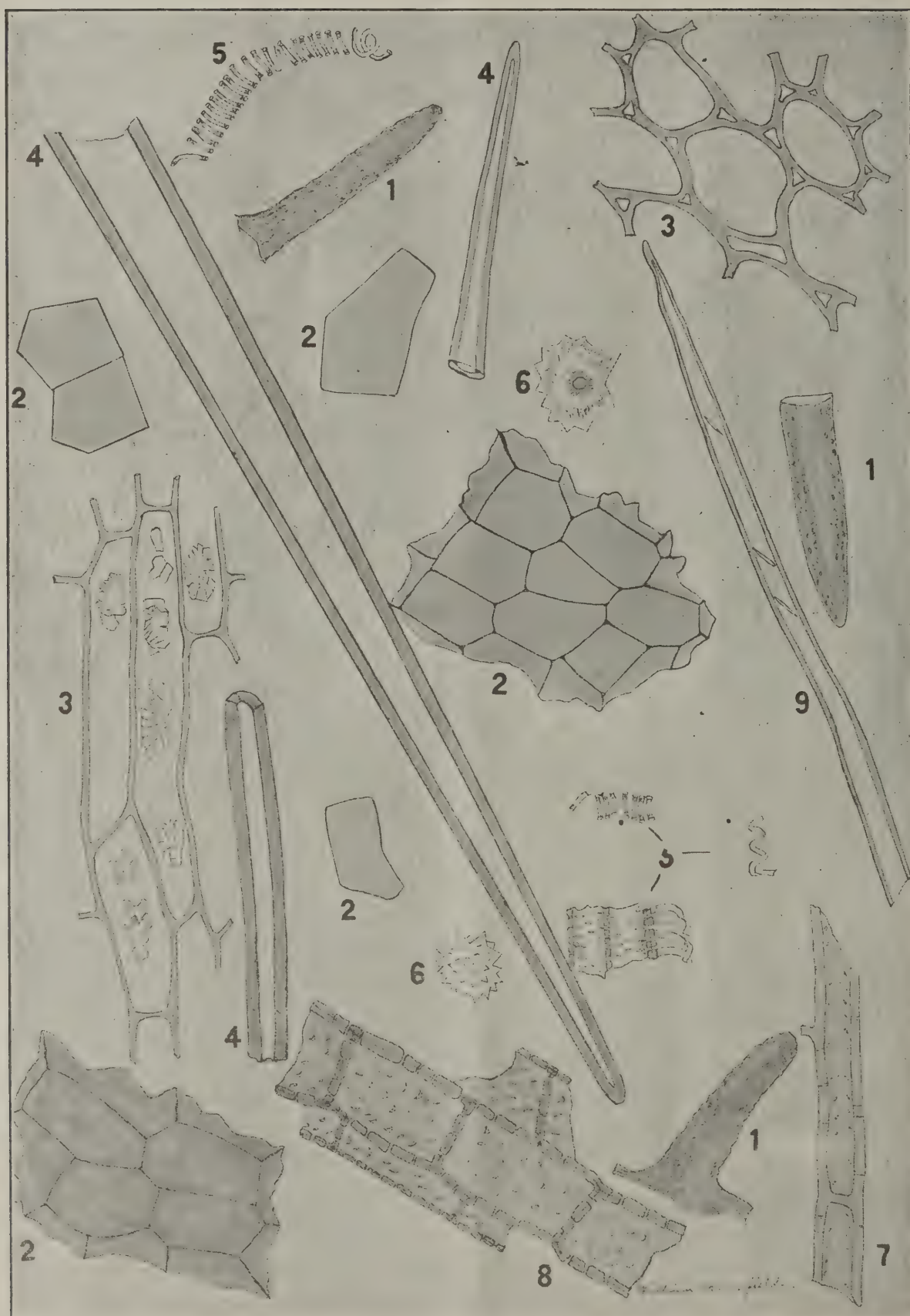


Figure 4.

Powdered Buchu Stems. (For Explanation, See Bottom of Opposite Page.)

crease the efficiency of the drug, necessitating the administration of larger doses in order to produce the desired effect. Take, for example, colocynth. If 10 per cent. of seed is allowed in the ground drug, then the medicinal value of colocynth will be reduced in just that proportion. Buchu stems having the same active constituents as the leaves, but in smaller amounts, the activity of buchu will be reduced if 10 per cent. of stems is allowed in it, but just how much reduced is uncertain.

In drugs like ipecac, buchu and aconite, I can see no good reason for not permitting the presence of a small percentage of a plant part which is not now official, provided its collection with the official part cannot be avoided, or that in its separation from the official part unnecessary expense is involved. Hundreds of tons of domestic and imported drugs are used yearly in the extraction of their active constituents, and there should be a sharp line drawn between drugs used in this manner and those which enter into galenic preparations. The first mentioned class of drugs should not be excluded from commerce because they do not conform to pharmacopœial requirements. Some method could be devised by which the use to which the crude drugs were to be put could be determined, and standards fixed for them accordingly. It is a well-known fact that belladonna stems, like those of buchu, contain active constituents similar to those found in the leaves but in smaller amounts. If it is a commercial possibility to extract the alkaloids from the stems, then they should be allowed in commerce for that purpose.

Buchu containing a limited amount of stems will doubtless be allowed in the next Pharmacopœia, and whether this turns out to be a correct prophecy or not, it is desirable that the structure of the powdered leaves and stems be understood by those who may be called upon to differentiate between them and to identify the foreign matter with which the leaves and even the stems are frequently adulterated. With this in mind I have prepared the accompanying charts, by the aid of which any microscopist should be able to make the identification and differentiation.

Co-operation as to Credits.

By VICTOR LAURISTON.

At the end of a couple of months in Carisford, Wilkins gave more than ordinary heed to his books. His study of them he followed up with a number of personally conducted collecting tours. This in turn led to some earnest telephoning; and the telephoning proved the prelude to a little business conference at Schott's store, to which came Wilkins in his usual quiet, business-like way, and three other druggists with ill-concealed curiosity sticking out all over them.

Schott had the oldest drug business in Carisford, and the largest; Hawkhurst was a chill, suspicious sort of man; and Matten had a gruff, impetuous way which paid little heed to strange suggestions and resented any jolt from the rut. Watson alone looked good-naturedly at the new-comer when Schott, curious as were the others, indicated Wilkins as the individual responsible for calling the druggists of Carisford together for the first time in history.

"It's just this way," commented Wilkins, briefly. He felt that his reception would be cold, and the feeling made his manner a bit awkward. "Quite a few fellows have got into me—or rather, into my books—since I came here, and I dare say all of you have had the same experience. It has occurred to me that if we got together, and pooled our knowledge on the subject of dead-beats and slow-pays, it would save us each a nice little pile of dollars."

Wilkins had been staring modestly at the floor while speaking. Now he glanced up enthusiastically, despite his forebodings still expectant of encouragement. A chill frown passed around the circle.

It was Schott who spoke. "We are very careful with our credits," he remarked, frigidly, "and I think we are quite capable of looking after them. It's a pretty slick dead-beat that can get ahead of us. If he does get credit," he concluded, pompously, "I can just assure you that he'll earn it."

"Looks to me like a case of the careful man burning his fingers pulling the careless chap's chestnuts out of the fire," barked Matten. "Now, I watch my credits pretty closely. But suppose you, Wilkins, not

Explanation of Figure 4, Opposite Page.

1. Trichomes. 2. Epidermal cells, the larger pieces reddish-brown; the small aggregations white. 3. Transverse cortical parenchyma. 3'. Longitudinal cortical parenchyma with sphaero-crystalline masses of hesperidin. 4. Bast stereome. 5. Spiral, scalariform and reticulate conducting cells. 6. Rosette crystals of calcium oxalate. 7. Wood parenchyma near the pith with porous walls. 8. Pith parenchyma with porous side and end walls. 9. Wood fibers with oblique pores.

Powdered buchu stem has many striking features which make it easy of identification when mixed with buchu leaves. A few unicellular rough, thick, white-walled trichomes (1) occur distributed throughout the field. They are straight or slightly curved and vary in length from 40 to 100 microns; in thickness at the bast they measure from 10 to 22 microns. The central cavity varies greatly, and in some trichomes seems to have disappeared entirely. The epidermal cells (2) are very characteristic, occurring singly or in groups of two or more. The cells from the older stems often appear reddish-brown by transmitted light, while the epidermal cells from the younger stems appear whitish-opaque (porcelain-like). They are usually six-sided and angular in outline. The cortical parenchyma cells (3) on transverse view have a rounded cell cavity and intercellular spaces between the walls. The double walls vary in thickness, the greatest thickness being about 9 microns. The parenchyma

cells (3) on longitudinal view show square ends and often contain sphaero-crystalline masses of hesperidin. The thin-walled sieve cells and the surrounding cells are scarcely ever seen in the powder. The white-walled pointed stereomes (4) are a characteristic feature of the powder; they vary greatly in length, in diameter and in the thickness of their walls. In a number eighty powder the fibers are mostly broken. The greatest length of the unbroken fibers is 1.25 microns. The thickest wall measured 5 microns and the greatest observed width was 25 microns. The spiral reticulate and scalariform thickened conducting cells occur scattered throughout the powder. The reticulate and scalariform cells usually occur with wood fibers. It is an interesting fact that the spiral thickenings in conducting cells is usually separate from the side-wall and nearly always appears as indicated at 5. An occasional rosette crystal of calcium oxalate (6) is seen in the field. The wood parenchyma (7) which makes up a very small percentage of the xylem is not readily found in the powder. The pith parenchyma cells (8) have thick porous side walls and perforated side walls. The wood fibers (9) usually occur in masses surrounding the conducting cells; when occurring singly, the oblique pores readily distinguish them from the bast fibers.

The diagnostic elements of powdered buchu stems are: First, trichomes; second, reddish-brown and white-angled epidermal cells; third, the long white bast fibers.

knowing the town or being careless, don't keep your eyes peeled and fail to handle the credit proposition quite so well. If I put into the pool all the knowledge I've been piling up these ten years and you what you've picked up in about ten weeks, I'm the loser and you're the gainer."

"That's just the size of it," commented Hawkhurst, briefly.

Wilkins glanced despairingly at Watson. "What do you say, friend?" he inquired. Watson shrugged his shoulders. "You've heard the verdict," he remarked with a touch of kindness. "I wouldn't object to going into the scheme, for the sake of the profession; but I can't see that it's much use unless we all go in together."

"It's up to each to hoe his own row," added Schott, in his usual icy tones.

"It's up to each to hoe his own row," repeated Wilkins, in an odd voice. "Very well, gentlemen." He bowed, and walked out without another word; but he heard Matten laughing after him, and barking some contemptuous comment of his colleagues.

During the day the new druggist pondered the problem very seriously in odd moments when he wasn't busy waiting on customers, filling prescriptions, opening packing cases and keeping Jimmy on the move. Afterward he sat late in the little upstairs office, conning over his books by the light of an incandescent bulb and jotting down the names of the delinquents. "Fifty dollars behind," he commented grimly. "Fifty dollars in ten weeks. Whew! It's hard lines in a town like Carisford." And then he drew up a little catechism.

"Just charge 'em up an' I'll pay you on Saturday night," remarked a shoddy looking character next day; and Wilkins, with a smile, drew out his catechism.

"Name?" "Arthur Jawkes." "Street address?" "One twenty-two Courtland." "Where employed?" "Carisford Iron Works." "How do you wish to pay?" At the sound of the third question the telephone bell tinkled.

"Ain't this a rum go?" exclaimed Mr. Jawkes good-naturedly, somewhat taken aback by the innovation.

Wilkins laughed. "This is often used in the large cities," he remarked.

The dispensary curtains were pushed aside, and Jimmy's round face appeared, with his right eye wrinkled out of sight.

"You prefer weekly settlements, Mr. Jawkes?" commented Wilkins. "That will be perfectly satisfactory. That's a rather heavy parcel—I'll be glad to have the boy take it up for you. Pleased to meet you. Call again."

Half a dozen times during the first day the same performance was enacted, without undue ostentation. Twice Jimmy from behind the curtains winked his left eye, with the result that credit was refused.

"Ain't got any such name on the pay-roll?" explained Jimmy the first time, after the man's departure; while "Fired him last week," was his second comment.

The two rejected were added to the store's dead-beat directory, and Wilkins once more went after some of the other dead-beats. He moreover sedulously cultivated the acquaintance of the grocer on one side of his store and the hardware-man on the other. To these he imparted quite a bit of information, and received a great deal more in return. Dead-

beatism in all places runs, as it were, in strata; and this fact Wilkins speedily discovered. Special study taught him to discriminate.

One day he chanced to meet Watson. "How are the dead-beats coming on?" asked Watson, with a touch of geniality.

"Not so bad," replied Wilkins, urbanely.

"Did that old fellow, Buffer, who just skipped out get into you any?" added Watson.

"Five cents the first week I was here," laughed the new druggist. "How'd you fare?"

"Two-ninety-eight," laughed Watson. "But he managed to squeeze nearly forty dollars' worth of goods out of our friend Schott."

"That's hard," returned Wilkins, complacently. "Why, after what I wrote off three weeks ago I've added to the books only about a dollar that seems at all shaky."

Watson's eyes opened wide. "You must watch them pretty closely," he muttered, as Wilkins, grinning, moved on.

In the middle of the afternoon Wilkins had an anxious telephone call from Matten. "Say, Wilkins," asked he, abruptly, "d'you know a fellow named Hooper? Is he any good? I've got eleven dollars against him and he doesn't seem to be moving."

Wilkins laughed softly. "What about the careful man's fingers and the careless man's chestnuts?" he inquired. Then added: "Which Hooper is it?"

"John R."

"He came to me just a week ago," returned Wilkins, "and I turned him down hard. I know a merchant he has got into pretty heavily."

"Guess I know one, too," muttered Matten. "Thanks, old man."

Wilkins sat and grinned; and then grinned some more. "Say, Jimmy," he exclaimed, "I guess we see ourselves the oasis in the desert, and the caravan traveling our way. Hawkhurst was at me yesterday—wanted to load up with dates (I mean data) regarding half a dozen wolves in the fold. There's just our friend Schott left to come in."

But Schott hung out, obdurately; and Wilkins went his business way, picking up all the information he could. He made the standing of his credit customers a study—an unobtrusive study, but nevertheless a careful one. He used his catechism, sometimes indirectly, at other times directly but politely, on each new applicant for credit; and, before a second credit was added to the first, Wilkins knew his man's standing even better than he knew his pharmacopœia. All this information was tabulated in a card index file on his desk for ready reference; and there, at a moment's notice, he could find the history of each credit patron from the ground up. And what surprised him most was the slowness of the friction entailed when the scheme was rationally explained to the people who bought on credit.

Jimmy entered into the scheme with eagerness, and handled his role with surprising discretion. One day he came racing into the store at top speed. "Say, governor," he panted, "that old Skipwith that owes us \$2.55 is leaving for the West on the 3:18 this afternoon, and his goods are going with him. You'd better nail him at the depot and collect that little bill."

"Thanks, Jimmie," commented Wilkins, as, with a glance at the clock, he put on his hat.

"I'll bet old Schott will cuss himself," added Jim-

mie, gleefully. "Old Skipwith used to deal with Schott right along."

Wilkins, his hand on the door-knob, paused for a single hesitant moment; then turned back, and stepped to the telephone. His conversation lasted only a few minutes, and his portion of it was spoken in a whisper which he knew Jimmie, if he were listening, could not hear. However, Jimmy knew Schott's number, and he thought he heard it called.

"I'll be back in a few minutes, Jimmy," he added, aloud. "I'm going to the station."

Jimmy grinned meaningly. Wilkins, in his progress to the station only a block distant, sauntered along in leisurely fashion. He knew his ground, and was purposely taking his time. Matten's simile of the chestnuts occurred to him and he laughed softly to himself; as he turned the corner of the little depot and crossed the platform his laugh grew just a trifle louder. A few paces distant two men were excitedly conversing. They were Skipwith and Schott. The latter glanced up and beckoned to Wilkins.

"I will send the money from Vancouver, I sure will," declared Skipwith, emphatically. "Just so soon as I get there —"

"You'll not get to Vancouver to send it unless you pay it now," cried Schott, excitedly. "I've been bit by too many of your sort of people already. You pay or you stay—that's final."

"Good afternoon, gentlemen," interjected Wilkins, genially. "Just thought I'd let you know the amount of that little account, Mr. Skipwith, for I knew you didn't want to leave any such little, trivial bills behind you. It's only \$2.55."

"But I have no money," protested Skipwith.

"And my \$43.87," added Schott, insistently. "I want that. And if I don't get it inside of five minutes, it's the cooler for yours for trying to skip the country."

Skipwith glared at him for one angry moment; then stared, red-faced, at the platform. He muttered, disgustedly, then thrust a hand deep into his trousers pocket. "Well, here you are," he said, producing the money. As the train thundered in and the angry and crestfallen Skipwith boarded it, Schott stared a moment at Wilkins. Then he put out his hand. "I guess," he added, when Wilkins had shaken it warmly, "that we'd better get together as you suggested the other day and pool our credit information. I think it would do a powerful lot of good, after all."

Celtium, an Alleged New Element.

Urbain (*Compt. rend. through Chem. and Drug.*) in the course of a series of fractional crystallizations of a nitric acid extract of certain of the rare earths containing lutecium and scandium, has obtained a substance which he believes to be a hitherto unknown element. He has named it celtium, and assigns to it the symbol Ct. It is intermediate in its properties between lutecium and scandium.

Unna's Absorbent Paste.

Dreuw (*Monat. f. prakt. Derm.*) credits to Unna the following formula for an absorbent dermatological paste:

Zinc oxide.....	15 grammes.
Precipitated silica.....	3 grammes.
Benzoinated lard.....	42 grammes.

Hydrastis.*

By PROF. JOHN URI LLOYD.

Hydrastis canadensis is native to North America. Once abundant in the thick woodlands of the Central West, in the territory bordering the Ohio River from Illinois to Virginia, it is now in its native home practically exterminated. *Hydrastis* is known by the common names, golden seal, yellow puccoon, yellow root and other similarly expressive appellations signifying its color or applying to its nature. The root of this plant, of a rich golden-yellow, like its companion, *sanguinaria*, which, however, has a red color, was used by the Indians as a cuticle stain, and also as a dye for their garments. Being exceedingly bitter, it was also useful in repelling insects, when mixed with grease and smeared upon the skin, and hence served a double purpose in the use of primitive man.

The first printed conspicuity of *hydrastis* came from a paper read by Mr. Hugh Martin before the American Philosophical Society, 1782, published in the Society's Transactions, 1783, under the title "An Account of Some of the Principal Dyes employed by the North American Indians." By reason of its red berry, *hydrastis* was also called ground raspberry. Although it had been mentioned in various medical publications, the drug was held in slight repute, and was of no commercial importance until the advent of the American eclectics, who first prepared its alkaloidal salts for professional use. Its medical history dates from its use by the Indians, who introduced it as a native remedy to the earliest botanical explorers, and to settlers. Its therapeutic qualities were overlooked, however, by Kaln, 1772; Cutler, 1783; and Schoepf, 1785; Barton first bringing it before the medical profession, 1798. He credits the Cherokee Indians for its ascribed uses, and in the third part of his work (1804) he devotes considerable attention to the drug. Rafinesque (1828) states that the Indians employed it as a stimulant, and that the Cherokees used it for cancer, in which direction better remedies were to them known. The principal use of *hydrastis* by the Indians, however, and which afterwards crept into domestic practice, was as an infusion or wash for skin diseases, and for sore or inflamed eyes. It was also employed as a stimulant for indolent ulcers, and as an internal tonic. *Hydrastis* may be considered typical of the drugs that are employed very extensively by the medical profession, through their empirical introduction, it being recorded that even for gonorrhea the Indians discovered its utility.

Early authorities on American medical plants, such as Barton (1798 and 1804), Hand (*House Surgeon*, 1820), Rafinesque, Elisha Smith (1830), Kost (1851), and Sanborn (1885), give to *hydrastis* considerable conspicuity, whilst Dunglison's Medical Dictionary pessimistically (1852) states that in Kentucky only it is used, and then only as an outward application for wounds. In this Dunglison is "authority," but does not give the fact. (See *Drugs and Medicines of North America*, pages 154 and 155.)

*Bulletin No. 18, (Pharmacy Series No. 4), will give a brief history of every vegetable drug of the Pharmacopœia of the United States, 1900 edition. This bulletin, like other Lloyd Library publications, is not in general circulation, nor is it sold commercially, being designed solely for exchanging for the publications of societies and academies of science. Extra copies will be printed for those who, before May 15th, address, with one dollar, The Lloyd Library, Cincinnati, Ohio.

Competent and Mannerly Drug Clerks.

Prompted by the fact that he had recently talked to a proprietor who found it difficult to obtain the kind of clerk that he wanted, Charles H. Bowersox read a paper at the January meeting of the executive board of the National Association of Pharmacologists in which he set forth some of the qualities which he advised his fellow drug clerks to cultivate. He frankly admitted that it is frequently the case that clerks who are well versed in drugs and skilled in the art of compounding, are sadly deficient in salesmanship, or in some other way, and vice versa. He found, too, that this condition is noticeable among proprietors.

If all the proprietors and managers were qualified in the various ways that they should be, he believed there would be a marked improvement in the quality of the clerks, and that the future proprietor would come nearer being what he should be. A poorly-trained employer usually meant a poorly-trained clerk, who, in turn became a poorly-trained employer, and gave poor training to clerks. Proprietors should teach their clerks ethics which no college of pharmacy or business college can teach him.

The author of the paper thought that when a young man had been clerking in a drug store for two or three years and was still undecided as to whether he liked it, he had better quit. He expressed admiration for the man who, having decided upon his vocation, concentrated his forces to get the best out of it that he could. Continuing Mr. Bowersox said, in part:

No drug clerk should be satisfied with knowing nothing beyond prescription compounding, or only knowing how to effect sales; for although these are two very important matters and should be thoroughly understood, there is very much more that the clerk should know in order to be successful.

He should be familiar with the duties of the various persons connected with, or employed in a drug store; this will be necessary in the event that he should decide to embark in business on his own account.

Waiting on trade (as we commonly express it) is performed in a very ill manner by many clerks. Not long since, I had occasion to enter a grocery store for the purpose of making a purchase; while there I observed one of the clerks with his hat on and whistling while in the act of selling to a fashionably dressed woman a bill of groceries. No clerk can by indulging in such ill manners expect to build a gigantic business for his employer.

The clerk should display wisdom, be courteous, and dispense cheerfulness at all times. He should greet his customers with a kind "good morning," and extend to them an invitation to "call again"; and saying "thank you," after effecting sales, should become a habit with him. . . .

His attention to the "little folks" should be such as to win the patronage of the parents; for the older folks prefer to trade where their children are treated right.

It does not take the public long to learn how much or how little a clerk knows about his business—most persons prefer to be "waited on" by a clerk who can talk intelligently about his line of merchandise, and many persons will go a distance of two or three squares out of their way in order to trade with a clerk whom they know to be thoroughly competent and reliable.

Danger of Taking Another's Medicine.

A case of fatal poisoning is reported from England which was caused by one person taking a medicine intended for another. A woman had been taking, on medical advice, a mixture containing strychnine in fairly large doses and had become gradually accustomed to increasing doses of the drug. Some of this mixture had remained unused for a time and a dose of it was eventually taken by a sister of the woman,

with the result stated. In view of the risks to life and health from one person taking medicine prescribed for another, it would be well for physicians and pharmacists to caution patients to see to its prevention while using and to destroy unused medicine.

Peace Hath Her Victims No Less Numerous Than War.

The following table is taken from an article on "The Sane Fourth," in the *Journal of the American Medical Association* a year or so ago:

Battles.		Celebrations.	
Killed and Wounded.		Killed and Wounded.	
Lexington	83	July 4, 1903.....	4,449
Bunker Hill.....	449	July 4, 1904.....	4,169
Ft. Moultrie.....	37	July 4, 1905.....	5,176
White Plains.....	100	July 4, 1906.....	5,446
Ft. Washington.....	149	July 4, 1907.....	4,413
Monmouth	229	July 4, 1908.....	5,623
Cowpens	72	July 4, 1909.....	5,307
	1,119		34,603

Commenting upon these figures, the *Medical Fortnightly* says: "If old King George III could rise from his grave and see the above figures, he might say something like this: 'You rebels! You are getting your just deserts, and from your own hands. A just dispensation of Providence!'"

Last year the number of killed and wounded as a result of Fourth of July celebrating was placed at 2,923, the falling off being due to efforts of sane citizens to stop the annual outburst of barbarism.

Physicians and Pharmacists.

It seems strange, says the *Toledo Medical Report*, that some physicians and druggists cannot understand that their interests are mutual and that nothing can be gained by fighting each other. There is no doubt that there are faults on both sides, but instead of a campaign of mud-slinging which will only result in bitterness and drifting further apart, let us get together, get better acquainted and discuss these questions with fairness, and no doubt all will be benefited. The main thought, after all, should be, how we can benefit our patients most, and we think that this can be better accomplished by the two professions getting into closer relationship and working to their mutual advantage.

Niemeyer's Pill.

Bolenius (*Journ. Am. Med. Asso.*) gives the following as the formula originated by Felix von Niemeyer:

For each pill—

Powdered digitalis.....	½ grain.
Powdered ipecac.....	¼ grain.
Powdered opium.....	¼ grain.
Extract of helenium....	enough to make a mass.

Waterproof Cement.

Coal tar.....	12 parts.
Indiarubber	1 part.
Powdered shellac.....	20 parts.

Heat the tar and the rubber gently together; when homogeneous, incorporate the shellac. Pour the mass on a flat surface to cool. For use the cement is heated to about 250° F.

Abstracts

Waste of Life.

The *Medical Record* referring to a pamphlet on this subject recently published by an insurance company says: "It would be a waste of time to insist that lives are frequently carelessly thrown away; this must under existing conditions happen in all industrial countries, but the point perhaps that requires to be driven home is that in this country less care is taken to conserve life than in many other countries. Facts that may be especially noticed are that since 1880 the general death rate has decreased up to age 40, while above 40 it has steadily increased. From age 40 to 50 it has increased 13 per cent.; from 50 to 60, 29 per cent.; 60 and over, 26 per cent. This increase, then, is almost wholly due to degenerative diseases. The increase of cancer has been so often referred to that it needs little comment. The mortality from diseases of the heart, arteries and kidneys appears to be increasing by leaps and bounds. In the pamphlet under discussion it is stated that to check the enormous loss of life, a large proportion of which is preventable by the use of ordinary measures, the national government can spare but 1.3 per cent. of its total expenditure; Greater New York but 1.7 per cent., and 148 American cities but 1.8 per cent. The State of New York spends for the protection of game, fish and forests about four times more than it spends for the State Health Department. Of course, it is clearly apparent that more money by far should be expended by States and municipalities on the prevention of pollution of lakes, rivers, and streams, on providing a good milk supply, on strict supervision of all kinds of foods, and especially on the erection of sanitary buildings for the working classes. If these matters received the undivided attention of federal, State and municipal authorities the waste of life in this country would be greatly lessened."

Nutritive Suppositories.

Suppositories of the following composition for rectal feeding have been recommended by Boas (*Berl. klin. Woch.*) to replace nutritive enemas, which it is frequently inconvenient to administer and which do not always give the full nutritive value. The suppositories, which are 6 cm. long and about 1 cm. thick contain about 20.5 per cent. of water, 2.5 per cent. of mineral salts, 20 per cent. of cacao butter, 33.5 per cent. of carbohydrates (chiefly dextrin) and 23.5 per cent. of albumin. In cases where the intestine is very sensitive, it is recommended to incorporate into each suppository five drops of tincture of opium. The suppositories, which are well tolerated and of which five should be given daily, develop 46.2 calories each.

Diagnosis of Lead Poisoning.

Sternberg (*Wien. klin. Woch.* through *Journ. Am. Med. Asso.*) remarks that elimination of lead in urine or stool and the blue line on the gums are the most important and obvious signs of lead poisoning, but others are the peculiar worried expression or a drawn smile, anemia, slight tendency to jaundice, dyspepsia, hematuria in the urine, punctate red corpuscles, alimentary dextrosuria and levulosuria, increased blood-pressure and exaggerated tendon reflexes.

Alkaloid in *Eschscholtzia California*.

In *eschscholtzia californica* (California poppy) of Algerian origin, Adam has found considerable quantities of chelerythrine, while Fischer has isolated from a plant of unknown origin, protopine, homochelidonine, chelerythrine and sanguinarine. The presence of these alkaloids in plants grown in France could not be confirmed by Brindejone (*Bull. soc. chim. France*). He was able to isolate an alkaloid, which he has called ionidine, and which was not identical with any of the above. This alkaloid which is present in the air-dried plant to an extent of 0.25 per cent. occurs, when crystallized from alcohol, as colorless, transparent prisms, which melt at 154—156°C. and have the empirical formula $C_{19}H_{25}O_4N_4$. The alkaloid is almost insoluble in water and ether, rather difficultly soluble in alcohol but easily soluble in chloroform. No crystallizable salts could be obtained. Ionidine is a strong base. It yields a colorless solution with concentrated sulphuric acid which is changed to violet by a trace of nitrous acid. With Froehde's reagent an intense violet color, changing to brown, is produced. Injected into frogs the alkaloid exhibited slightly narcotic properties.

Toxicity of Various Arsenic Compounds.

Launoy (*Compt. rend.* through *Rép. de pharm.*) has examined several arsenic compounds as to their toxicity and has obtained the following results, the amounts of the various compounds necessary to kill a guinea pig in from one to ten days being expressed in grammes of arsenic per kilo: Sodium arsenate, 0.006 to 0.0012; sodium sulphoarsenate, 0.00875; sodium sulphoxyarsenate, 0.00991; sodium methylarsinate, 0.00254; sodium sulphomethylarsinate, 0.0256; atoxyl, 0.0418; sulphatoxyl, 0.0221; acetylatoxyl, 0.0462; acetylsulphatoxyl, 0.0266; colloidal arsenic, 0.0083. Sodium cacodylate in doses corresponding to 0.09125 gramme of arsenic, and sodium sulphocacodylate corresponding to 0.0713 gramme per kilo did not kill guinea pigs. The introduction of sulphur into atoxyl and acetylatoxyl doubles the toxicity. The author has also found that guinea pigs which had been treated with sodium arsenate and atoxyl for months succumbed to the lethal dose just as quickly as those which had never been treated with these compounds, thus showing that the animals do not become tolerant of them.

Phenolphthalein as a Laxative.

Koehler (*Schweiz. Woch.*) has made an extended study of the action of phenolphthalein in the various conditions of the intestines and has found that it gives positive results only when the intestinal content is strongly alkaline. By administering to patients *bacillus bulgaricus* and prescribing at the same time vegetable diet, a perfect disinfection of the intestines could be obtained. The stools were of a light color, inodorous and showed an acid reaction. Phenolphthalein administered to such persons did not produce any effect at all. The author believes that the cause of the frequent failure of the remedy when given to children may be due to the fact that the latter are kept mostly on a vegetable diet, and that, therefore, their intestines usually show a neutral or only slightly alkaline reaction.

Similarity Between Nitrite and Acetanilide Poisoning.

A physician after administering liquor sodii phosphatus compositus observed symptoms similar to those occurring in acetanilide poisoning. He sent a sample of the liquor to the *Journal of the American Medical Association*; this was examined in the association laboratory and the result published in the *Journal*, as follows: "Tests which would detect minute quantities of acetanilide failed to reveal the slightest trace of this substance. The odor of the solution was distinctly characteristic of oxides of nitrogen such as are produced in the decomposition of nitrates or nitrites. The presence of a small quantity of nitrate—a regular constituent of this preparation—was detected and also the presence of considerable quantities of a nitrite. Quantitative determinations showed the presence of an amount of nitrite equivalent to 2.9 per cent. sodium nitrite. It seems improbable that a nitrate used in the preparation of this mixture had decomposed to form a nitrite; it is more likely that a nitrite was used inadvertently. If this preparation was given in doses of 8 c.c. (2 fluid drams)—the U. S. P. dose for liquor sodii phosphatus compositus—the patient received 0.2331 gramme or three and one-half times the U. S. P. dose of sodium nitrite."

Anilin Gentian-Violet.

Buhlig (*Quart. Bull. Northwest Un. Med. School*) excludes light and air as much as possible from gentian-violet staining solution. He never filters the solution, nor shakes or otherwise disturbs the bottle. This is practically carried out by putting the solution in a syphon bottle of very dark brown glass. The intake for air is cut down to a capillary bore of such size that will still allow a flow of liquid, and the delivery tube is painted black to the tip with asphaltum paint. The lower part of the intake tube for air is also painted, to be quite certain of excluding light. This arrangement affords convenience as well as assuring a dependable stain.

Shortcomings of Tincture of Iodine.

Referring to the growing use of tincture of iodine for the sterilization of wounds, and of the skin, Holbrook (*N. Y. Med. Journ.*) complains that the official tincture is not so satisfactory as one that contains no potassium iodide. He says that the greater miscibility with water of the official tincture is a negligible advantage in the external employment of the tincture, and that because the potassium iodide causes the tincture to dry more slowly and to spread too easily the presence of the salt is objectionable. He favors a return to the 1890 formula and the renaming of the 1900 product as a compound tincture.

Ptomaines in Vegetable Matter.

Yoshimura (*Biochem. Zeit. through Pharm. Journ.*) has isolated from 1 kilogram of putrefied soya beans about 0.18 gramme of iminazolyethylamine, 0.25 gramme of tetramethylenediamine (putrescine), 0.53 gramme of pentamethylenediamine (cadaverine), 0.23 gramme of trimethylamine and 4.6 grammes of ammonia. Histidine, arginine, and lysine were absent.

Detection of Boric Acid.

Both the flame test and the test with turmeric paper for boric acid are frequently disturbed by the presence of other substances. These products at times color the flame to such an extent as to perfectly mask the green color produced by boric acid. Fellenberg (*Trav. de chim, through Schw. Woch. Chem. Pharm.*) advises to eliminate these substances and for this purpose he recommends the following process, which depends on the fact that boric acid is difficultly soluble in diluted hydrochloric acid, but comparatively easily soluble in alcohol: One gramme of the mixture under examination is dissolved in 2 c.c. (mils) of hot concentrated hydrochloric acid. The mixture is then allowed to cool and to crystallize. In case no crystallization should take place the latter is induced by adding a saturated solution of sodium chloride. The mother liquid is then decanted as much as possible from the crystals and from the latter the boric acid is extracted by boiling with 4 to 6 c.c. (mils) of alcohol. The latter solution is then examined for boric acid in the regular way.

Oil of Peppermint.

Muraour (*Bull. soc. chim. France*) has examined the oil obtained by distilling dry leaves of mentha piperita and has found the following constants: Specific gravity at 15°, 0.911 to 0.913; optical rotation, —38°18 to —40; esters 33.16 per cent. to 40.31 per cent.; total menthol 44 per cent. to 45.6 per cent. This oil, which differs considerably from the true French oil in regard to optical rotation and percentage of esters, and from the American oil in regard to percentage of esters and menthol is very frequently used for adulterating true oil.

Poisoning by Sassafras Oil.

Secretan (*Brit. Med. Journ.*) reports the poisoning of a dog by the application of sassafras oil. The dog had become infested with pediculi, and the oil was applied freely several times within a week. The dog became ill; a veterinary surgeon who was called in told the owner that he thought the dog was poisoned, and that he had seen two similar cases. In all three cases, absorption had taken place through the skin, and not by the dog licking himself. The dog eventually died, about a week after the last application of the oil. The author suggests that in view of the free application of the oil to children's heads, which is now said to be a common practice, it would be interesting to learn if any bad results have been experienced after its use.

Deciphering Writing on Burned Paper.

A contributor to *La Nature* writes that the ashes of a large number of papers have been studied as to the traces left by the ashes of different inks or pencils. All trace of writing made with an ink composed of inorganic coloring matter or of lamp-black, disappears on incineration; while inks containing an iron salt, such as are generally used in Europe, leave a red-brown residue of ferric oxide. In this case the traces of writing become quite visible in the ashes of completely burned paper, and interesting documents, which were accidentally, or intentionally consumed, have been thus reproduced.

Preparing Starch to Use as an Indicator.

Matthieu (*Ann. chim. anal. through Pharm. Journ.*) notes that in using starch as an indicator in end reactions with iodine solutions there is often indistinctness of the terminal point, when the blue color may be evanescent or the color may vary from violet to rose, this variation being due to the presence of dextrin. Further, starch solutions may contain swollen grains, which retain the blue color somewhat persistently, and thus destroy the delicacy of the end reaction. The author, therefore, advises the use of "soluble starch," which he prepares thus: Starch flour is digested for some time with a solution of hydrochloric acid, 1 in 1,000, then washed with distilled water, dried at 30°, and heated for some hours in an oven at about 100°. The weak acid treatment takes out traces of alkaline bases and alkaline earths, and converts neutral phosphates into acid phosphates. When it is submitted to the dry heat its physical state is gradually modified into that of a "soluble starch." The starch thus prepared and dried keeps perfectly. For use as a reagent 1 gramme is dissolved by boiling for a few moments with 100 c.c. (mils) of water and filtering. The resulting solution is very limpid, free from granules, and with iodine is colored pure blue, the blue color being instantly discharged on removal of the excess of iodine. The use of preservatives is condemned.

Making Cloth Waterproof.

For making cloth waterproof Balland (*Rev. Serv. Intend. Mil.*) recommends the use of commercial aluminum acetate, having found that fabrics treated with this chemical withstand water just as well or even better than those which have been treated with caoutchouc, gelatin, boiled linseed oil, paraffin, aluminum stearate, aluminum sulphate, etc. The old process of producing aluminum acetate on the fiber by the action of a solution of lead acetate on a solution of alum does not give as satisfactory results, according to the author, as those obtained by the use of commercial aluminum acetate, which is used extensively as a mordant in dyeing cotton and in printing fabrics. The process is a very simple one. One liter of this chemical, which is marketed as a liquid of 6 to 7° Bé, is mixed with 40 liters of water and the cloth is allowed to remain in this mixture for 24 hours. After draining well, it is dried in the air.

Detection of Colchicine.

Zeisel's method for the detection of colchicine in toxicological examination has been modified by Fuehrer (*Arch. exp. Pathol.*) in the following way: 3 to 5 c.c. (mils) of the liquid under examination are heated in a boiling water-bath for a half hour with 5 drops of diluted hydrochloric acid (15 to 20 per cent). While still hot, ferric chloride solution is added until a green color is no longer produced. After cooling, the mixture is shaken with one-third or one-fourth its volume of chloroform, when the latter will become colored yellow to garnet-red, the intensity of the color varying with the amount of colchicine present. When the solution contains more than 2.5 milligrammes of colchicine the chloroform will acquire a brown color. In order to obtain the characteristic garnet-red coloration the solution before testing should be diluted properly.

Antagonism of Adrenalin and Strychnine.

Falta and Jvcovie (*Berlin klin. Woch. through Pharm. Journ.*) found that if the exposed heart of a frog is poisoned by dropping on its surface 3 or 4 drops of a 2-per cent. solution of strychnine nitrate, after twenty to thirty seconds the frog gives evidence of general tetanus. The heart contracts with difficulty and finally stops in diastole. If 2 or 3 drops of a 1-per cent. solution of adrenalin is then applied to the heart, it begins to beat again and the rate in time exceeds that of the normal frog's heart. Experiments were also conducted with guinea-pigs, strychnine and adrenalin being injected into the abdominal wall. In many cases the two substances were mixed. These experiments showed that 1.6 milligrams of strychnine alone killed within thirty-seven minutes, and 3.2 milligrams killed in ten minutes; 4 milligrams of strychnine mixed with 0.6 milligram of adrenalin did not produce symptoms, but larger doses of strychnine, or smaller doses of adrenalin, were followed by death. The authors regard adrenalin as a powerful antidote to strychnine.

Pæmol.

Arboreous peony (*pæonia arborea*), a ranunculaceous plant, called in China montan and in Japan botan, is used as an antispasmodic. Martin and Jagi have isolated from it a substance possessing a very agreeable odor, which they have called pæmol. It crystallizes in needles, melting at 48—50°, is chemically the methylester of resacetophenone and gives a red-violet color with iron chloride solution. Penon (*Journ. pharm. chim.*) has found that pæmol is not preexistent in the drug, but that it is formed by the action of a ferment in the drug on a glucoside. The sugar obtained by this hydrolysis could be identified as glucose. The glucoside, according to the author, is also hydrolized by diluted mineral acids, but not by invertin or emulsin.

Poisoning by Oleomargarin.

A few months ago numerous persons in the city of Hamm (Germany) were afflicted by serious gastrointestinal troubles, the origin of which was traced to the use of oleomargarin, prepared by a certain factory. Dunbar (*Deutsch. med. Woch.*) has found that the fat was free from metallic salts and alkaloids, but that it contained 50 per cent. of so-called "cardamom fat," a product which, however, is not prepared from cardamom seed, but from hyduocarpus seed, and which is marketed under the name "Maratti fat." Plücker (*Unters. Nahr. u. Genussm.*) has since examined the oleomargarin referred to and found that the poisonous substance is a non-volatile fatty acid, which is identical or nearly related to crotonic acid and curcas acid. These acids must be considered as the poisonous principles in croton oil and in the oil of *jatropha curcas* var. *curcas purgans*.

Lead in Tartaric Acid.

Guérin (*Ann. d'Hyg. publ.*) has examined eight samples of commercial tartaric acid and has found each one to contain lead, the amount ranging from 0.00536 to 0.0136 per cent. The author therefore recommends to carefully examine tartaric acid for this metal.

The Modern Materia Medica.

Agarase is a preparation of agar-agar and the lactic ferment.

Albumozo is said to contain casein, fat and inorganic salts, partly phosphates.

Alypinoids is the name for tablets containing alypin and suprarenin.

Atrophan is 2.phenylquinoline.4.carbonic acid.

Avantol is a cresol-sulphonic acid solution which seems to be almost identical with *sanatol*.

Casogen, a nutritive preparation, contains milk-protein, glycerophosphates and ovo-lecithin.

Digitalis Winckel is the name for powdered digitalis leaves which have been dried by a special process in order to destroy the enzymes, which, in the ordinary drying process, are said to exert a hydrolytic action on the active principles.

Epinine, a synthetic product, is 3.4.dihydroxy-phenylethylmethylamine, which is said to possess all the physiological properties of the suprarenal principle acting similarly to this on the blood pressure, heart, etc.

Erepton, put forward as a material for rectal feeding, is obtained by a pancreatic digestion of lean meat. It occurs as brown scales or granules and possesses an odor suggesting yeast.

Fructoid is a fruit-jelly containing phenolphthalein.

Gayatin is a liquid containing ammonium guaia-colsulphonate.

Gyssoplasma is similar in action to antiphlogistin.

Helmitoloids are tablets containing helmitol.

Hydropsin is a name for a preparation said to contain the juice of fresh squill, honey, potassium borotartrate, and tincture of gentian.

Iod-Asklerosin Tablets contain blood salts in which the calcium is replaced by effervescent citrate of magnesium. Each tablet also contains some sodium iodide. They are put forward for the treatment of arteriosclerosis.

Lecisan Oil, a nutritive preparation, is said to contain lecithin, vitellin, maltose, and lactose.

Matrival is a weak alcoholic extract of German chamomile and valerian.

Meningit is the name for tablets containing rhubarb, aloes, senna, cascara sagrada, capsicum and various other drugs.

Pectinal is a 2 per cent. emulsion of oil of pinus sylvestris.

Siccoliment is the name for vasoliments containing either iodine, camphor-chloroform, salicylic acid, or ichthyol.

Stenosine is disodium methylarsinate.

Streptococcus Vaccine is a vaccine prepared from micrococcus rheumaticus (Paine and Poynton).

Thiopetrol is an emulsion containing sulphur and petroleum. It is put forward for the treatment of dandruff and alopecia.

Wa-ka-na, a Japanese preparation for rheumatism, consists chiefly of camphor.

Wolominth is an alcohol-free mouth and gargle water containing oil of peppermint and salol.

Aromatic Perles.

These pearls or pastilles are to be used in linen closets, chiffoniers, etc., in lieu of sachet powders.

Amber	2 grammes.
Benzoin	10 grammes.
Orris	6 grammes.
Vanilla	1 gramme.
Cloves	1 gramme.
Cinnamon	1 gramme.
Oil of neroli.....	6 grammes.
Oil of citron.....	1 gramme.
Oil of rose.....	1 gramme.
Mucilage of tragacanth.....	enough.
Glycerin	enough.

The solids are to be reduced to a moderately fine powder, mixed intimately, and made into boluses with the mucilage and a little glycerin. The pearls are then to be wrapped in parchment paper and gilt foil.

Oriental Toilet Water.

Spirit of pimento.....	36 c.c. (mils).
Tincture of benzoin.....	36 c.c. (mils).
Tincture of tolu.....	36 c.c. (mils).
Tincture of ambrette.....	54 c.c. (mils).
Tincture of orris.....	48 c.c. (mils).
Tincture of tonka.....	16 c.c. (mils).
Oil of cloves.....	2 c.c. (mils).
Oil of geranium.....	2 c.c. (mils).
Lavender water.....	200 c.c. (mils).
Cologne water.....	200 c.c. (mils).
Acetic ether.....	15 c.c. (mils).
Rose water.....	25 c.c. (mils).
Alcohol	300 c.c. (mils).

Lotion Vegetale au Seringa.

Durville gives the following formula for this popular hair lotion:

Tincture of vanilla.....	200 grammes.
Tincture of cantharides.....	20 grammes.
Terpineol	10 grammes.
Oil of rose geranium.....	1 gramme.
Oil of ylang-ylang.....	1 gramme.
Heliotropin	2 grammes.
Alcohol	2000 c.c. (mils).
Water	80 c.c. (mils).

"White" Soft Soap.

Coconut oil.....	43 grammes.
Potassium hydroxide.....	7 grammes.
Alcohol	100 c.c. (mils).
Distilled water.....	50 c.c. (mils).

Dissolve the hydroxide in the alcohol. Add the oil, little by little, with constant stirring. Recover the alcohol by distillation at a minimum temperature. Add the water to the residue.

Perfume for Talc Powder.

Oil of neroli.....	2 c.c. (mils).
Oil of cloves.....	1 c.c. (mil).
Oil of bergamot.....	2 c.c. (mils).
Oil of rose geranium.....	2 c.c. (mils).
Oil of sandalwood.....	1 c.c. (mil).
Oil of lavender (old).....	1 c.c. (mil).

Notes and Queries.

NOTICE.—It is desirable that all questions to be answered under this head should be received before the fifteenth of the month and they must be accompanied with the name and address of the writer.

Queries are not answered by letter. The information supplied in these columns is intended for the benefit of our readers in general, not for the profit of the individual inquirer only.

Making Tincture of Nux Vomica.—C. H. W., District of Columbia, writes:

1. Why does the Pharmacopœia in the case of tincture of nux vomica require the tincture to be prepared from the powdered extract?

2. Why would not a tincture prepared from the fluid-extract be equal in every particular to the tincture prepared from the powdered extract, bearing in mind that the fluid-extract is standardized in the same manner that the powdered extract is?

3. Why would not a standardized tincture prepared from the crude drug, answering as it would all the requirements of the Pharmacopœia, be equal to the U. S. P. tincture?

1. This question is answered by the United States Dispensatory. The change in the official directions for making tincture of nux vomica were made by the committee which revised the 1880 Pharmacopœia and issued the 1890 edition. In the former the use of the crude drug was directed and in the latter, the use of the extract. The eighteenth edition of the United States Dispensatory, commenting on this change, says:

The object of the U. S. 1890 process is to secure a more reliable and definite tincture than was possible under the old process; for this reason 2 per cent. of the standardized extract is directed to be dissolved in a mixture of 3 volumes of alcohol and 1 volume of water. On account of the very tough structure of nux vomica, percolation is accomplished usually with varying results.

It may be said, however, that a number of the foreign Pharmacopœias direct that the tincture be prepared direct from the seed. This is true of the German, French, Hungarian, and Spanish pharmacopœias, but not of the British.

2. This opens up the old question as to the advantages or the reverse of making tinctures of fluid-extracts—a practice in wide vogue but one which has not received the sanction of the best pharmacists. One reason the best pharmacists do not sanction this practice is that on account of the difference usually existing between the menstrua of fluidextracts and tinctures of the same drugs, precipitation often ensues when the former are diluted to make the latter.

3. We are unable to answer this question. We believe that a tincture answering all the requirements of the Pharmacopœia would be equal to the pharmacopœial tincture. However, in these days of stringent drug laws which uphold the authority of the Pharmacopœia, it is well for the dealer in drugs to be sure that his goods really do answer the requirements of that work.

And now that we have answered our querist's questions categorically, we may add a little historical note of our own which should throw a side-light on the matter:

When the 1880 Pharmacopœia was in course of preparation there was no practical way known by which the strength or quality of nux vomica could be determined. After giving directions for making the tincture from the crude drug, so that each 100 parts of tincture should contain 2 parts of dry extract, that book said: "Tincture of nux vomica thus pre-

pared represents about 20 parts of nux vomica in 100 parts." Nothing was said about the alkaloidal strength of the preparation, although as a matter of fact some nux vomica seed are poor in alkaloids and rich in extractive, while others are just the reverse.

About a year after the publication of the 1880 Pharmacopœia, Dunstan and Short reported to the British Pharmaceutical Conference (see the issues of THE DRUGGISTS CIRCULAR for August, 1884, page 116, and September, 1884, page 131 to 133) a series of experiments made by them which showed the great variation in alkaloidal strength of nux vomica seed, and out of this work grew the change made in the British official formula for tincture of nux vomica. A similar change was later made in our own Pharmacopœia, largely, no doubt, on account of a paper read at the 1885 meeting of the Michigan Pharmaceutical Association by Dr. A. B. Lyons—or, at least, on account of facts set forth therein—which paper appears in full in the CIRCULAR for December, 1885, page 252. The three pharmaceutical chemists named, as well as others, showed that a tincture standardized according to its alkaloidal strength, rather than according to its extractive, was not only feasible but decidedly preferable. Another factor which no doubt influenced the decision of the revision committee to make in our 1890 Pharmacopœia the change noted, was a law-suit instituted about the time this committee was beginning its work. This suit was one brought by the food and drug commission of New Jersey, against a druggist of Atlantic City, Henry Leeds, for selling a tincture of nux vomica, made from a standardized "normal liquid," which did not yield the required 2 per cent. of extractive. Parke, Davis & Co., whose "normal liquid" had been used, defended the suit, and introduced witnesses who testified that the intent of the Pharmacopœia makers was better complied with by a tincture made from the "normal liquid" than by one made from the seed, even though the designated amount of extractive might be lacking in the latter. Among these witnesses were Prof. J. P. Remington, Dr. H. H. Rusby, Dr. R. G. Eccles, Dr. H. A. Hare, Dr. John Marshall, and Prof. F. G. Ryan. In spite of all this, however, the case went against Mr. Leeds. In commenting on this outcome the CIRCULAR said: "The committee of revision can scarcely fail to provide in the new Pharmacopœia for the standardization of nux vomica tincture." For a full account of this trial, see the issues of the CIRCULAR for February, 1891, page 30, and March of the same year, page 73 and 94.

Tincture of Canadian Castor.—J. S. K., Connecticut.—This is a tincture made from castor (castoreum) obtained from the American beaver. Tincture of castor is used principally in hysteria, in doses of from ½ to 2 ounces, and then more for its psychic effect (according to Hare) than on account of any sedative property it may possess. It is official in France, the Codex of that country saying that the American (Canadian) castor is preferred to the European (Russian) variety. The formula for the tincture is, 10 grammes of castor in coarse powder and enough 80% alcohol to make 100 grammes; macerate for 10 days in a closed vessel with frequent agitation, express and filter. On account of its resinous nature it is incompatible with aqueous liquids.

The drug and its tincture are described in the usual text-books, including the dispensatories.

"Extract of Blodgetti."—L. G. S., North Carolina, asks if the "extract of blodgetti" mentioned in the pamphlet, *Consumption Cure Fakes*, issued by the American Medical Association, is the same "extract of blodgetti" exposed as a humbug in the CIRCULAR fifty-two years ago, as mentioned in an editorial note in the March issue, page 122. Our querist remarks that as the name "blodgetti" is a fictitious one it seems strange that a nostrum faker should adopt it more than half a century after it had been exposed as simply bait for suckers.

It does seem strange, but as "there is a sucker born every minute" doubtless there are many who will grab at the bait. There must be some psychologic influence about the sound of the word, or its appearance in type, which makes it attractive to fakers, and maybe to suckers, too, for although we have many new names for fake stuff to be used in free prescriptions, our old acquaintance still holds its place.

Looking back rather hastily over the files of the CIRCULAR we find in 1909 that a post-office fraud order was issued against a concern exploiting "blodgetti"; in 1905 and 1906 the "confidence game" of the "Rev. Wilson" showed new life and we had a few words on the subject; in 1889 we answered a query about this fictitious extract; in 1885 (October) we printed in full the fake prescription calling for "extr. of blodgetti" which brought out alleged formulas for "blodgetti" from a number of correspondents who differed considerably among themselves, some even saying that "blodgetti" was a popular synonym for galangal (November and December). In 1869 (March, page 58) the CIRCULAR said: "The dust raised by the queer articles in the pretended formula is designed to conceal its swindling character. Wilson is like the cuttle-fish—little except ink is seen where he operates. It is surprising to us that he has been able to hold out in his unwarrantable practices so long." In 1862 (November, page 168) is a column article in which the "Rev. Wilson" is flayed in the most scathingly sarcastic manner. In 1859 (October page 229) appears the following item, under "Notes and Queries," which seems to be the first mention made in the CIRCULAR of the name under discussion:

C. J. G., (Canton, O.)—We have had a number of inquiries about the same matter, and have tried to find out the Rev. Edward A. Wilson at Williamsburgh, but without success. We consider both him and the extract of blodgetti an unmitigated humbug.

At the 1908 meeting of the American Pharmaceutical Association Dr. Lyman F. Kebler read a paper entitled "Prescription Nostrums," in which he made some extended references to this matter. His paper appears in the Proceedings for that year, page 570.

Liniment Formula.—Joseph H. Milo, New York, contributes the following formula for a liniment:

Tincture of iodine.....	4 drams.
Tincture of opium.....	4 drams.
Tincture of aconite (35%).....	2 ounces.
Tincture of capsicum.....	2 ounces.
Chloroform	2 ounces.
Soap liniment.....	10 ounces.

Attach a shake label.

We thank Mr. Milo for his formula, which we hope will be found of service to our readers.

Perhaps this formula may be of service to our querist C. C. G., Pennsylvania.

Piano Polish.—A. B. R., New York.—In introducing an extended note on this subject, embracing many formulas, in the CIRCULAR for January, 1910, page 20, we said:

So frequently have we printed formulas for preparations of this kind that one of our friends has poked fun at us for the large amount of attention bestowed upon the matter, and asked us if we could not find something better to fill the space. However, you want the formula for a fixture cleaner and polisher, and as you have applied for help at the place which makes a specialty of aiding all those who seek light on pharmaceutical and allied subjects, we shall not send you away empty-handed, no matter what the scoffers may say: our idea is to run this department for the benefit of those who need it, not for the know-it-alls. If anybody does not see in it what he wants he is requested to ask for it.

And more recently, that is to say, in the CIRCULAR for December, 1910, page 636, we said:

Perhaps the best method for polishing pianos, carriage or automobile bodies, and other high-gloss varnished surfaces is to go over the varnish first with a pledget of absorbent cotton saturated with kerosene. Then go over it with a piece of chamois leather dipped first in olive oil and then in finely powdered and bolted rotten stone, using a circular movement. Wipe off the rotten stone with the palm of the hand moving in a rotary direction and wiping off the hand after each rotation; and then go over the surface with a piece of chamois saturated with olive oil. Finally wipe dry with a piece of soft silk.

The formula calling for acetic acid and butter of antimony, to which you refer, appears in the first-mentioned note, and is as follows:

Mahogany Polish.

Hydrochloric acid.....	2 drams.
Butter of antimony.....	12 drams.
Alcohol	12 drams.
Linseed oil.....	4 ounces.
White wine vinegar.....	8 ounces.
Mix in the order given.	

Malted Milk.—D. L. C., Georgia.—In an article on baby foods in the CIRCULAR for June, 1909, page 296, we stated that we had seen the following formula for "malted milk." This powder is to be added to the milk, the proportions not being stated, and the liquid evaporated and powdered if a dry product is desired:

Powdered malt.....	1 ounce.
Powdered oatmeal.....	2 ounces.
Sugar of milk.....	4 ounces.
Roasted flour.....	1 pound.

It has been stated that the first malted milk was produced by Liebig who in 1867 took out a patent on a food product made as follows, according to Pharmaceutical Formulas:

Fresh skimmed milk.....	12,458¼
Wheat flour.....	720
Water	1,440
Ground malt.....	720
Potassium bicarbonate.....	21¾

Mix the milk and flour, and boil for five minutes; then cool to 150° F., add the other ingredients, and maintain the heat for one-and-a-half hours. Finally boil for two minutes, strain, evaporate and powder.

Headache Cologne.—S. C. W., New Jersey.—When you wrote you had not received the April issue of the CIRCULAR, on page 195 of which there is a note on this subject.

Tooth Paste Formula.—T. P. P., District of Columbia.—We do not know the formula of the tooth paste you mention. Why not devise a formula of your own? Many helps for those who wish to do this are given in the CIRCULAR from time to time. One of a half dozen or more formulas for tooth pastes in the CIRCULAR for May, 1909, page 235, is here offered, to be used as a basis for any experiments which you may wish to make in devising a satisfactory formula:

Precipitated chalk.....	14½ ounces.
Powdered soap.....	2½ ounces.
Glycerin	18 drams.
Water	20 drams.
Powdered sugar.....	4 drams.
Solution of sodium hydroxide....	3 drams.
Saccharin	3 grains.
Thymol	7 grains.
Oil of peppermint.....	15 minims.
Oil of cinnamon.....	15 minims.

Other formulas may be seen in the issues of the CIRCULAR for February and December, 1910, pages 74 and 634, respectively; and for September, 1909, page 456.

Artificial Maple Syrup.—"Druggist," Massachusetts.—We do not approve of imitation products, but as there is a much greater demand for maple syrup than there is maple syrup with which to fill it, there may be a legitimate use for artificial syrups when they are not sold for and as the genuine. Artificial or adulterated foods which are not in themselves harmful, are objectionable when they are misbranded. For instance, oleomargarin is held by some people to be as good as butter, but when we buy butter we do not wish oleomargarin palmed off on us. Neither do we wish flavored glucose when we buy maple syrup, but if we cannot get maple syrup perhaps we could be induced to try the substitute, with the full knowledge that it was a substitute, just as we might prefer oleomargarin to eating our bread dry.

It is said that artificial maple syrup may be made by boiling simple syrup and adding, while it is cooling, 4 ounces of the inner bark of hickory to the gallon. Another way to make this syrup is by boiling glucose with maple chips.

A correspondent of the CIRCULAR says: "I have used the following, which will deceive good judges of the genuine, and at the same time be harmless:

Red corn cobs.....	4
Water	2 pints.
Light brown sugar.....	enough.

"Boil the cobs in the water until the latter is quite red, strain and add sufficient sugar to make a heavy syrup. When cold the flavor is very pleasant to the taste."

A manufacturing chemist writes us: "A tincture of guaiac wood, made with 20 per cent. alcohol, makes a good maple essence. A little vanillin and oil of lemon may be added to improve it, but I have known 'barrels of money' to be made on the guaiac alone."

Of course, it would be rank fraud to sell syrup so made as genuine maple syrup.

"Each year in the city of Chicago alone more 'pure Vermont sugar and syrup' has been made than could be produced by all the trees in the Green Mountain State if they ran sap all the year round. But there

is a pure food law now." So reads a portion of a press dispatch from Bennington, Vt., announcing the opening of the maple syrup season, and in Farmers' Bulletin No. 252, issued by the United States department of agriculture, we read: "In spite of the well-known fact that the demand for maple sugar and syrup has increased and is increasing enormously every year, the price of both sugar and syrup has steadily declined—from 13 cents a pound for sugar and \$1.25 a gallon for syrup in 1882; to 11 cents a pound for sugar and 91⅔ cents a gallon for syrup in 1903. Meanwhile the census returns show that the actual production of the groves has not increased since 1860."

Sabadilla for Body Lice.—E. L. P., New Hampshire, has calls for something which the "lumber jacks" pronounce "sebidella," as near as he can make it out. They say they want it for use against body lice. Our querist thought perhaps they wanted red precipitate, but they said not. He asks us for help in interpreting their wishes.

We guess sabadilla or cevadilla or, as the Germans write it, läusekörner, which is used in the shape of powder, ointment or decoction to destroy vermin. The United States Dispensatory refers to a pulvis capucinorum, of which sabadilla is the principal ingredient, in use in Europe for the destruction of lice in the hair. A formula for this powder is given in the CIRCULAR for June, 1910, page 282.

Sabadilla is very poisonous and is said to have caused death when applied on a scalp that was ulcerated. It may be absorbed in toxic quantities through the lacerations of the skin caused by scratching.

Liquid Glue.—T. R., Ohio.—We do not know the processes for making the two glues that you specify, but in a general way we may say that liquid glues generally depend for their fluidity upon acetic or phosphoric acid. A typical formula follows:

Glue	200 parts.
Diluted acetic acid.....	400 parts.
Alcohol	25 parts.
Alum	5 parts.

Dissolve the glue in the acid by the aid of heat, and to the solution add the alum and alcohol.

A number of other formulas appear in the CIRCULAR for last month, page 206; and a miscellaneous collection of formulas for adhesives may be seen in the issue for November, 1907, page 731.

Vilane.—"Quinine," New York.—This is one of the fakes whose advertisements appear among the "pure reading matter," as advice from the editor or some "beauty specialist." Such an advertisement of vilane appeared in a Fort Madison (Ia.) paper, in which it was declared that a "local druggist is authority for the statement," etc.; and next day there appeared in the same paper a real statement signed by every druggist of the town, which while not in exactly this language was to the effect that the editor and publisher of the paper had lied for pay for the purpose of deceiving their readers, and in so doing had besmirched the character of the local druggists.

A note on this subject appears in the CIRCULAR for last month, page 233.

Aromatic Fluidextract of Cascara Sagrada.—L. D. S., New York.—This is an official preparation, the formula for it being in the United States Pharmacopœia. Drugs sold under an official name should be of official strength, quality or purity.

George M. Beringer has devised a set of formulas for fluidglycerates, which appears in the CIRCULAR for November, 1908, page 549. From Mr. Beringer's paper the following excerpt is taken:

Bitterless Fluidglycerate of Cascara Sagrada.

Cascara sagrada, in number 20 powder. 100 grammes.
Lime 5 grammes.

Mix the lime with 200 c.c. [mils] of distilled water and stir in the cascara sagrada, moistening the drug evenly and thoroughly. Dry the moist powder by exposure to a moderate heat until air dry, then proceed with this as directed in the type process, using 80 c.c. [mils] of the glycerol-water menstruum to moisten the drug.

The resulting product is deep red-brown in color, bitterless, entirely free from sediment, and quite satisfactory. It mixes clear with water, syrup, or diluted alcohol, and cloudy with alcohol.

Aromatic Fluidglycerate of Cascara Sagrada.

Bitterless fluidglycerate of cascara
sagrada 75.0 c.c. [mils.]
Fluidglycerate of glycyrrhiza..... 25.0 c.c. [mils.]
Oil of fennel..... 0.1 c.c. [mil.]
Oil of cloves..... 0.1 c.c. [mil.]
Oil of cassia..... 0.1 c.c. [mil.]
Mix.

This is an excellent aromatic preparation in which the bitter taste of cascara is effectually disguised.

Type Process.

The type process referred to above is as follows:

The drug in coarse powder..... 100 grammes.
Glycerin 50 c.c. [mils.]
Distilled water..... 150 c.c. [mils.]
Chloroform water..... to make 100 c.c. [mils.]

Mix the glycerin and distilled water and moisten the drug thoroughly with a sufficient quantity of the mixture and then pack it very lightly in a cylindrical percolator and saturate thoroughly with menstruum; cork up and cover the percolator, and allow to macerate for two days, then continue to percolate until the drug is exhausted, using first the remainder of the menstruum and then chloroform water. Reserve the first 50 c.c. [mils] of percolate and set this aside. Evaporate the remaining percolate on a water bath, the weaker portion first, then the stronger until reduced to 60 c.c. [mils], and then add the reserve and continue the evaporation until the product measures 100 c.c. [mils]. If evaporation has been carried too far, make up to 100 c.c. [mils] with distilled water. Set the product aside for several days to settle; decant the clear supernatant layer, and strain the remainder through muslin.

Other notes on this subject, with formulas, appear in the issues of the CIRCULAR for February and April, 1909, pages 68 and 183, respectively; and June, 1908, page 267. A Canadian formula is given in the issue for November, 1905, page 393. See also the note on "Bitterless Fluidextract of Cascara Sagrada" on this page.

Bitterless Fluidextract of Cascara Sagrada.—F., California.—This being an official preparation, deviations from the official formula as given in the National Formulary should not be made except in circumstances which justify such deviations both morally and legally.

Some years ago the CIRCULAR printed the following process for making a fluidextract of cascara which is active and yet free from bitterness: One kilogram of the bark, in coarse powder, is treated with hot water, and the liquid expressed after six hours of maceration; and the operation is repeated, enough

water being used in all to yield about 2.5 liters. The liquid is mixed with 200 c.c. (mils) of ammonia water, and concentrated to 800 c.c. (mils). No ammoniacal odor should then be given off, and, after cooling, milk of lime is added until the alkaline reaction is persistent. After standing four days and being shaken frequently the liquid is filtered. It should still be alkaline. The milk of lime has precipitated the emodin and the bitter constituent. A little tartaric acid is then added to precipitate the excess of lime, and the whole is allowed to stand eight days, when it is filtered again. The extract should now possess no bitter taste. Finally, 200 c.c. (mils) of alcohol are added as a preservative.

Another process for making a bitterless fluidextract of cascara sagrada appears in the CIRCULAR for February, page 74. A note on this page under the head "Aromatic Fluidextract of Cascara Sagrada" may also prove of interest in connection with a study of this subject.

Separation of Water from Ointment of Rose Water.—F. W. Scott, Jr., New York, is a man of practical ideas about many pharmaceutical affairs, and seems to be especially keen about those which concern toilet articles. He writes:

"I have often been annoyed to find drops of water had separated from my U. S. P. cold cream and it had lost that nice homogeneous appearance it had when first made. This was particularly noticeable in warm weather. By using an equal weight of powdered castile soap in place of the sodium borate I have overcome this annoyance."

Of course, any preparation "sold under or by a name recognized in the United States Pharmacopœia or National Formulary" should not differ from the "standard of strength, quality or purity as determined by the test laid down in those books."

We thank Mr. Scott for his note, which we feel will be helpful to many of our readers.

Florida Water.—F. W. Scott, Jr., New York, is kind enough to contribute the following formula for a Florida water which, he says, is pleasing and at the same time inexpensive:

Oil of cassia.....	0.50 c.c. (mil).
Oil of bergamot.....	2.50 c.c. (mils).
Oil of lavender.....	2.50 c.c. (mils).
Oil of lemon.....	2.00 c.c. (mils).
Menthol	1.25 grammes.
Talc	enough.
Alcohol	550.00 c.c. (mils)
Water....	enough to make 1000.00 c.c. (mils).

Dissolve the oils and menthol in the alcohol; add the water in several portions, stirring well after each addition. Stir in a small quantity of talc, and filter. The water improves with age, and the best results follow the use of an oil of lavender that is at least a year old.

Almond Cream.—V. B. R. S., Illinois.—A formula for a rose-almond cream may be seen in the CIRCULAR for March, page 128; and one for an almond bleaching cream appears in the issue for February, page 86. In the issue for November, 1910, page 576, is a formula for a plain almond cream, and scattered through the volume for 1908 are several others.

Liquid Court Plaster.—P. L. M., Pennsylvania.—While the exact process employed by any particular manufacturer in making liquid court plaster is unknown to us, we may say that in a general way most preparations of this kind have a sort of collodion base. Many notes on the subject, with formulas, have appeared in the CIRCULAR during the past half dozen or so years, as may be seen by reference to the numbers for September, 1909, page 454; August, 1907, page 549; February, 1906, page 53; August, 1905, page 281; and August, 1904, page 184.

If soluble gun cotton is dissolved in acetone in the proportion of about 1 dram by weight of the former to 35 or 40 drams by volume of the latter, and $\frac{1}{2}$ dram each of castor oil and glycerin be added, a colorless, elastic and flexible film will form on the skin when the liquid is applied. Unlike ordinary collodion this preparation does not readily peel off. If tinted very slightly with alkanet and saffron it can be made to assume the color of the skin so that when applied it is almost invisible.

It is said that a mixture of warm solution of sodium silicate and casein, about 9 parts of the former to 1 part of the latter, gelatinizes and forms a sort of liquid court plaster.

A portion of the note in the August, 1905, issue is here quoted:

The proportions of alcohol and ether for a pyroxylin-solvent may be varied within wide limits and the relative quantity of pyroxylin used is to be determined by the viscosity required. Suitable proportions are 100 volumes of ether to 40 volumes of alcohol (preferably absolute). Other solvents of pyroxylin are acetone (and homologues), various simple ethers, esters, camphor in absolute alcohol, etc. For epidermic application the ether-alcohol collodion is the best liquid; it evaporates so quickly that a few minutes suffice to apply several successive coatings to strengthen the film, which is most adherent. Pyroxylin in various simple or compound solvents, alone or associated with oily, resinous, or pigmental bodies, or incorporated with a suitable modifying agent, as for example camphor, may be used as a thin lacquer, a thick varnish, or a plastic solid.

As a working formula the following may be found useful:

Pyroxylin	1 ounce.
Amyl acetate.....	5 ounces.
Acetone	15 ounces.
Balsam of fir.....	2 drams.
Castor oil.....	2 drams.
Oil of cloves.....	15 minims.

Dissolve the pyroxylin in the amyl acetate, and the acetone, and add the other ingredients, avoiding fire, or light.

Ovoferrin.—T. R., Ohio.—According to Modern Materia Medica, a very valuable little condensed dispensatory of the more recent drugs and preparations, "ovoferrin is a reddish-brown, nearly odorless, slightly aromatic 5 per cent. solution of an organic iron compound, 'synthetic iron vitellinate,' to which the formula $C_{47}N_{17}SH_5FE_8O_{22}$ has been assigned." The same book is authority for the statement that each tablespoonful of this preparation is equivalent to 1 grain of elementary iron, and that it contains about 9 per cent. of alcohol.

A somewhat longer note, based upon an examination of ovoferrin made in the laboratory of the American Medical Association, appears in the CIRCULAR for September, 1910, page 472.

Sodium Cacodylate.—"Hospital Apothecary," New York, writes:

Kindly publish the therapeutetic uses of sodium cacodylate, doses, etc. One or two of our physicians have used it in Europe in clinics, and I want to get more information on its latest methods of use and dosage. A dose of $\frac{1}{2}$ to 2 grains is accepted as fair, but we are giving 3 grain doses in nervous cases with apparent good results. It being an arsenical derivative and one of the comparatively new remedies, its use is not entirely covered in standard works.

Literature.

Sodium cacodylate, which is the salt of cacodylic acid most used, is official in France but not in Germany, Spain, Great Britain, Hungary, or the United States. It is described at some length in the British Pharmaceutical Codex; and each of our dispensatories devotes a paragraph to it. Sollman, in his Text-Book of Pharmacology, briefly sums up its properties and uses. In 1900, 1901, and 1902 the reporter on the progress of pharmacy for the American Pharmaceutical Association included many notes and references to cacodylates in his abstracts from foreign journals. These authorities have been drawn upon for much of what follows. Clinical reports appear in current medical literature.

Physical Properties.

The salt in question is white, odorless, tasteless and deliquescent. It occurs in prismatic crystals or as an amorphous powder, different specimens differing in appearance according to the temperature at which they were crystallized and the nature of the solvent used, and contain varying proportions of water of crystallization. Of the latter, commercial varieties usually contain 2 or 3 molecules. The salt is soluble in one-half its weight of water, and in its own weight of alcohol.

Therapeutics.

The arsenic in sodium cacodylate is so combined that it does not produce directly, when the salt is used medicinally, the characteristic arsenic action. Sodium cacodylate is therefore much less toxic than the ordinary arsenic salts, and correspondingly less active therapeutically. In 1901 Heffner said that its superiority over ordinary arsenic was not established, and, if it had any such superiority it was due to its slow liberation of arsenic. This was quoted with approval by Sollman, in 1906, and the latter added that since such liberation occurs readily in the stomach, the better way to administer the drug is hypodermically in doses of from 1 to 3 grains a day, or intravenously.

On account of the alliaceous odor developed when taken by the mouth, and for other reasons, sodium cacodylate is sometimes administered in the form of an enema. A weak injection is made by dissolving 25 grammes of the salt in 200 c.c. (mils) of water; while a strong injection contains 40 grammes in the same quantity. The dose of these is 5 c.c. (mils) twice a day, in certain limitations.

The drug is indicated in tuberculosis, anemia, diabetes, chloroses, certain affections of the skin, etc., but should always be administered with great care, as its by-effects are sometimes disastrous.

Chemistry.

Cacodylic acid is monobasic, its molecular weight is 138, and it contains 54.3 per cent. of arsenic, equivalent to 71.7 per cent. of arsenic trioxide. Sodium cacodylate has the formula $(CH_3)_2As.O(ONa)$, its molecular weight is 160, and it contains 46.0 per cent.

of arsenic, equivalent to 61.8 per cent. of arsenic trioxide.

When pure and dry, 100 parts of cacodylic acid require 28.99 parts of sodium hydroxide for saturation. When lime water is added to a solution of the acid or its salts a precipitate indicates the presence of oxalates, arsenites and arsenates. The sodium salt should give no precipitation with silver nitrate, or at most only a slight turbidity.

Cacodylates give the following color reactions: with cupric sulphate, blue; with cobaltous chloride, rose-red, changing to violet and blue; with nickel nitrate, light green; with mercurous nitrate, yellowish; with mercuric nitrate, white, becoming yellow when heated, but not brown; with neutral lead acetate, faint whitish turbidity; with ferrous sulphate, no precipitate in the cold, but a green-blue one when heated; with ferric sulphate, no reaction in the cold, but a blood-red color on heating, which persists on cooling; with silver nitrate, a white, slimy precipitate.

Pharmacy.

Before dispensing sodium cacodylate with other ingredients, it is well to make sure that it contains no free alkali; any of the latter found to be present should be neutralized with cacodylic acid, otherwise, for instance, when mixed with iron, it may cause precipitation of ferric hydroxide.

In the CIRCULAR for February, 1910, page 66, the following formula for making a satisfactory pill mass of sodium cacodylate is given:

Sodium cacodylate.....	3 parts.
Powdered tragacanth.....	1 part.
Powdered sugar.....	2 parts.
Wheat flour.....	6 parts.
Water	enough.

Mix vigorously.

The finished pills are to be rolled in a little powdered talc.

It is also said that a good mass may be made by incorporating the salt with extract of gentian.

The hypodermic injection may contain—

Morphine hydrochloride....	0.0025 gramme.
Cocaine hydrochloride.....	0.0100 gramme.
Sodium chloride.....	0.0200 gramme.
Sodium cacodylate.....	5.0000 grammes.
Phenol solution (5%).....	2 drops.
Distilled water....to make 100.0000 c.c. (mils.)	

A sodium cacodylate mixture contains—

Sodium cacodylate.....	2 grammes.
Distilled water.....	60 grammes.
Rum	20 grammes.
Simple syrup.....	20 grammes.
Oil of peppermint.....	2 drops.

Salts of cacodylic acid with bases of potassium, lithium, calcium, magnesium, silver, iron, and mercury are mentioned.

Brass Polish.—J. W. L., Pennsylvania.—We are not familiar with the preparation that you name, but of brass polishes there is no end. Numerous formulas for such polishes have appeared in former volumes of the CIRCULAR from year to year as reference to the annual indexes will show. We refer you especially to the issues for September, pages 470 and 472; August, page 413; and May, pages 235 and 238; all for last year; and August, 1909, page 410. Most or all of these are for polishes in paste form, which can be converted into liquid by the addition of oil,

alcohol, glycerin or water, as the case may be. In the CIRCULAR for October, 1908, page 470 are formulas for over a dozen different metal polishes, powders, pastes and liquids. Last month, too, page 207, we printed a formula for a brass polish.

Perhaps something like the following would be found suitable for your purpose:

Crude oleic acid.....	4 pounds.
Liquid petrolatum.....	1 pound.
Kieselguhr	1¼ pounds.
Oil of lemon.....	3 drams.

Household Salves.—S. S. B., Virginia.—We do not know the formula or the real or alleged therapeutic properties of the salves you mention, but perhaps some of the recipes printed or mentioned below may give you a “steer” in the direction of getting what you want:

Poslam.

According to analyses made in the laboratories of the American Medical Association, poslam consists essentially of—

Zinc oxide.....	12.01 parts.
Sulphur	6.67 parts.
Corn starch.....	22.00 parts.
Tar oil.....	15.18 parts.
Menthol	a small quantity.
Salicylic acid.....	a small quantity.
Fatty base (probably petrolatum)	
enough to make 100.00 parts.	

Healing Salve.

Resin	8 ounces.
Beeswax	8 ounces.
Zinc oxide.....	8 ounces.
Venice turpentine.....	4 ounces.
Lard	32 ounces.
Tannin	½ ounce.
Oil of sassafras.....	½ ounce.

A formula for mother's salve is given in the National Formulary under the title “Brown Ointment,” and in the same book are to be found formulas for compound tar ointment, “soothing ointment,” Wilkinson's or Hebra's ointment, and others adapted to more or less popular use.

Egg Shampoo.—V. B. R. S., Illinois.—The egg in so-called egg shampoos is usually present in the name only, although there are formulas for shampoos in which the use of real egg is directed. One such follows:

Ammonia water.....	4 drams.
Cologne water.....	5 drams.
Alcohol	8 ounces.
Water	8 ounces.
Whites of.....	2 eggs.

Beat the egg-whites well and add them to the water and ammonia water previously mixed; then add the other ingredients.

Other formulas for real egg and so-called egg shampoos appear in the issues of the CIRCULAR for September, 1910, page 468; and August, 1909, page 406.

Dentur Tales Doses.—W. E. B., Maine.—The initials, d. t. d., in a prescription, when used in connection with some number, as iv, for instance, mean, let (four) such doses be given. See Remington's Pharmacy, page 1093 of the fifth edition.

Elixir of Catnep and Fennel.—R. L. M., Pennsylvania.—We do not know anything about the composition of any preparation of catnep and fennel further than that on the label of a proprietary elixir of that name it is stated that the preparation contains 22 per cent. of alcohol and "catnep, fennel, spearmint and sodium bicarbonate in proportionate combination." Were we called upon to furnish an elixir of catnep and fennel we should ascertain from the physician desiring the preparation how much oil of fennel, oil of catnep, oil of spearmint and sodium bicarbonate he wished to have in each specified dose. We should then dissolve a sufficient quantity of each of the oils in about 200 c.c. (mils) of alcohol; dissolve the sodium bicarbonate in 500 c.c. (mils) of water; dissolve 400 grammes of sugar in the aqueous solution; add a few c.c. (mils) of compound spirit of orange to the alcoholic liquid; shake this mixture with a handful of filter paper pulp; add to it the syrup in divided portions, shaking after each addition; set aside the mixture for several days, shaking it four times a day; strain it through cheese-cloth; allow the colate to cool to about 60° F. (40° F. if in the winter); and filter it through paper, returning the filtrate until it came through clear.

Some folks may prefer to proceed along a different line, and as a guide to those we append this formula:

Triller's Carminative Elixir.

Tincture of orange peel.....	50 c.c. (mils).
Aromatic tincture.....	20 c.c. (mils).
Spirituos peppermint water....	20 c.c. (mils).
Fennel oil-sugar.....	5 grammes.
Caraway oil-sugar.....	5 grammes.

Then too there is the elixir of anise of the National Formulary.

Re-Silvering Mirrors.—P. A. K., New Jersey.—As we stated in the CIRCULAR for last month, page 205, so few pharmacists are interested in the matter except from an academic standpoint (as no one without proper equipment and a considerable amount of experience should expect to turn out a satisfactory job of this kind), that we think we should hardly be justified in taking the space to repeat every year or two the directions for re-silvering mirrors that we have printed from time to time. You may see such directions in the CIRCULAR for March, 1907, page 267; and in the issue for May, 1910, page 234 is some information in regard to repairing mirrors.

Solvent for Hard Rubber.—H. J. S., Pennsylvania, writes:

I wish a good volatile solvent for vulcanite. Have used chloroform, which is satisfactory as a solvent, but after being bottled for a month or more it seemed to deteriorate and generates a very offensive gas, forcing out the corks. Naphtha is satisfactory, only for the danger of handling the solution near a fire. Can you suggest a good volatile solvent that is not inflammable and will not deteriorate?

We take it that our correspondent has trouble with the deterioration of the solution of vulcanite and not with deterioration of the solvent. This deterioration presumably is brought about by the interaction of the sulphur in the hard rubber with the solvent and results in the formation of hydrogen sulphide. The hydrogen in the petroleum distillates being more closely combined these solvents are not so apt to interact with the rubber; but they have the drawback of in-

flammability and their use is consequently to be condemned. We know of no solvent that will fulfill all our querist's requirements, unless it be carbon tetrachloride. Owing to the absence of any data as to the behavior of solutions of vulcanite in the tetrachloride we are not able to pronounce such solutions stable. Theoretically this solvent seems to be especially adapted to the purpose under consideration, but hard rubber of itself will under certain conditions of temperature and moisture give off hydrogen sulphide. As an influence in this connection it is well to consider the composition of the hard rubber. This substance contains from 2 to 20 per cent. of sulphur, and as only about 2 per cent. is combined the percentage of free sulphur is a variable one and obviously not without effect upon the chemical action of the vulcanite.

Because of its anesthetic properties, the use of carbon tetrachloride is not without danger, and its users should govern themselves accordingly.

We should be glad to learn the results of any experiments along the lines herein mentioned that our correspondent or others of our readers may make.

Greaseless Cold Cream.—N. C. C., Minnesota.—Since you have not found a satisfactory formula for a non-drying greaseless cold cream among the many formulas for creams given in the CIRCULAR for January, 1910, pages 21 to 23, or among the supplementary ones that have appeared in subsequent issues, we are reproducing herewith a portion of an article on "The Manufacture of Greaseless Cold Creams," by H. B. Molyneaux, which originally appeared in the *Bulletin of Pharmacy*.

In my opinion there is only one method for making non-greasy cold cream. By this method the resulting cream is as near the ideal as any yet brought to my attention. The formula has only been contrived after many long and trying experiments, and after trying out almost every conceivable combination and proportion possible. It yields the best non-greasy cold cream, considered from every standpoint, that can be made. Physically it is a most beautiful preparation, having a satiny finish and luster that cannot be duplicated by any other method. It will stand up longer with less loss of water than any cream on the market. To the consumer it has none of the disagreeable medicinal features so common among these creams, such as irritating or greasing the skin.

In the beginning forgive me if I impress upon you the necessity of following the *modus operandi* to the letter. One of the first steps in this operation is the use of a granite-ware kettle of from 6 to 8 gallons in capacity for making the quantity contained in this formula. Weigh out accurately:

Stearic acid.....	3 pounds.
Powdered borax.....	1½ pounds.
Monohydrated sodium carbonate.....	1¾ av. ozs.
Glycerin	1½ pounds.
Distilled water.....	18 pounds.
Perfume, a sufficient quantity.	

Weigh the water, glycerin, borax, and sodium carbonate into a suitable vessel and effect solution by heating on a water- or steam-bath. When heated to 100° C., gradually add the stearic acid, which has been previously granulated, stirring constantly all the time during the operation.

Boiling distilled water should be added from time to time during the process to make up the loss by evaporation. The operator can gauge the hardness or softness of the cream according to the amount of water used in the process. Less water will stiffen the cream; more water will soften it. Under no circumstances should cold water be added to the cream during the process, and under no conditions should either hot or cold water be used after the cream has set.

It is very necessary that I call your attention to some of the important points to be observed in this process. First

of all see that the ingredients used conform to the descriptions in the beginning of this paper [they must be of U. S. P. quality]. Under no circumstances should the operator discontinue stirring the preparation before the product is cold. This is of vital importance. Do not discontinue the heat until saponification is complete.

In order to give an idea to the operator as to when the cream is finished, it will be well to describe the reaction and physical changes that take place during the operation. On adding the stearic acid the solution will begin to thicken and gradually become a gelatinous mass. After due time, through heating and stirring, it will begin to fluff up, and finally it will "come down" all at once to a semi-transparent liquid. At this point it should be removed from the fire and the perfume added. The preparation must be stirred until cold and should never be filled into jars or packages while hot, as it is apt to separate.

PERFUMES.

I.

Liquid aubepine.....	4 ounces.
Concrete oil of orris.....	1 ounce.
Borvordial, 10%.....	1 dram.
Oil of rose geranium, African.....	4 drams.
Benzyl acetate.....	1 ounce.
Deodorized alcohol.....	enough to make 1 pint.

II.

Muguet royal.....	8 ounces.
Oil of rose.....	2 drams.
Otto of jasmine.....	4 drams.
Oil of ylang-ylang.....	1 ounce.
Artificial musk, 100%.....	2 drams.
Benzole benzoate.....	enough to make 1 pint.

Precipitation in a Rose Water Solution.—X. Y. Z., New York, had trouble with a mixture composed of—

Cocaine hydrochloride.....	1 grain.
Boric acid.....	15 grains.
Sodium borate.....	5 grains.
Rose water.....	1 ounce.

He complains that a flocculent precipitate forms in the solution after it has stood a few days, notwithstanding the fact that he makes it of high-grade, official chemicals, and distilled rose water.

Ordinarily borax will precipitate cocaine from a solution, but will not do so in the presence of glycerin, or enough boric acid to render the liquid acid, as is the case with the mixture in question. It seems to us that the flocculency is due to the rose water, as the distilled aromatic waters display this phenomenon unless they are kept in containers loosely stoppered with a plug of sterile absorbent cotton. We suggest the use of plain sterilized distilled water, or rose water made by shaking oil of rose with hot sterilized distilled water in the proportion of about 4 drops to the pint.

Glazed Finish on Post Cards.—F. F. Z., New Jersey.—It is our opinion that the highly glossy coating on picture postal cards is gelatin applied in the way by which photographic papers are coated. The process is a simple one but requires special apparatus and training. We do not think that single cards could be coated satisfactorily; the large sheets of paper are coated by moving them across a tank containing a hot aqueous solution of gelatin in such a manner that the surface to be coated is in contact with the surface of the liquid. You might experiment with flowing a hot thin solution of gelatin over the surface of the card.

Glossy photographic prints receive a high polish by placing them face downward while saturated with water upon a sheet of ferrotype metal previously

brushed over with a weak solution of paraffin or spermaceti in benzin and rubbed dry with a pledget of cotton. The prints are pressed upon the ferrotype plate with a rubber roller or otherwise so as to expel all the air and water between the prints and the plate, after which the prints are allowed to dry spontaneously whereupon they will detach themselves from the plate. This procedure may be followed with other gelatin-coated cards. It should be borne in mind that the gelatin coating must be allowed to dry completely in a place protected from dust before the cards are saturated with water prior to being "squeegeed" on the ferrotype plate, and that benzin vapor is dangerously inflammable.

How to Fill Dr. Hyndman's Prescription.—John E. Groff, Rhode Island, accepting our oft-repeated invitation to those who can contribute anything of interest to this department do so, writes:

In the March number of the CIRCULAR, page 142, was a request for "Father John's" formula, and in the April number, page 205, a copy of Dr. Hyndman's prescription was given as a reply. This recipe affords a good example of the comparative worthlessness of a formula without the directions, for those who seek formulas are usually deficient, or at least not expert, in manipulation. Therefore with all deference to your correspondent, Mr. Dudman, who is from Boston, where the prescription was once common, I offer some data.

In the first place, on comparing my formula with the one you print, I find some differences, so I give Dr. Hyndman's own formula. I, too, am from Boston, and so know. These things get changed in time, and I can vouch for the genuineness of this, having filled it for Dr. Hyndman often.

Syrup of tolu.....	8 ounces.
Powdered extract of licorice.....	2½ drams.
Cod liver oil.....	10 ounces.
Spirit of peppermint.....	3 drams.
Compound tincture of lavender.....	5 drams.
Confection of almond.....	1 dram.

Triturate the extract of licorice and the confection of almond with one-half the syrup of tolu until a smooth paste is formed; add the oil gradually, stirring after each addition, until emulsification is complete; then add the balance of the syrup of tolu, to which has first been added, and stirred in, the spirit of peppermint and compound tincture of lavender.

By this plan a perfect emulsion is effected.

Confection of Almond.

To make the confection of almond, which is the emulsifying agent, the following plan is good, for those who use enough to make it worth while:

Blanch the almonds by placing them in boiling water for three minutes, slip the skin off between the thumb and forefinger, and dry them between folds of cloth; when dry grate them on a nutmeg grater and let them stand in a dry place until brittle. Triturate with the acacia and sugar and keep in a bottle tied over with gauze. [These are practically the directions found in the British Pharmacopoeia, the proportions of the ingredients being, almonds, 8; sugar, 4; acacia, 1.—Editor THE DRUGGISTS CIRCULAR.] I have a sample in my cabinet which is sixteen years old, unspolled.

This contribution is indeed interesting and we feel sure our readers will join us in extending thanks to Brother Groff for making it.

What Is "Spiritus Gallicorum"?—H. W. B., District of Columbia.—Knowing nothing of the use to which the preparation is to be put and nothing of the connection in which the name occurred, and not being able to find the name in any lexicon or text-book, we are reduced to the necessity of guessing outright. Our guess is that "spiritus gallicorum" is a synonym in distorted and bad Latin for "spiritus vini gallici," gallicorum being the plural of gallici.

Crude Oil Hair Tonic.—J. C. H., Pennsylvania, wants a "formula for a crude oil tonic cut down with bay rum and alcohol." Such a formula to the best of our knowledge does not exist, primarily, because crude oil (crude petroleum) is not of itself soluble in or miscible with alcohol or hydro-alcoholic liquids. The oil "tonics" of our acquaintance have been mixtures of castor oil and alcohol. But castor oil, it would seem, is not a satisfactory substitute for crude oil in the realms of capilliculture, the vogue enjoyed by the product of the oil-well being based upon the belief that its action as a rubefacient and as a stimulant of the sebaceous secretion is peculiarly efficacious, this belief, in turn, having some connection with the fact that native petroleum contains sulphur.

Crude oil is generally applied as a hair tonic in its natural form, although the characteristic odor of the oil is sometimes more or less effectually masked with aromatics. A bona-fide crude oil hair "tonic" would be a "shake" mixture and a far from "elegant" one. To offset the untoward psychological effect of the appearance of the mixture it should be marketed in opal-glass containers or in bottles completely covered with a paper wrapper.

As a formula to start with we offer this one:

Crude petroleum.....	150 c.c. (mils).
Alcohol	450 c.c. (mils).
Oil of bay leaves.....	5 c.c. (mils).
Oil of pimento.....	5 c.c. (mils).
Oil of lavender.....	5 c.c. (mils).
Oil of cloves.....	2 c.c. (mils).
Water.....	enough to make 1,000 c.c. (mils).

Shake the crude oil with the aromatic oils and 300 c.c. (mils) of alcohol. Add the rest of the alcohol mixed with 300 c.c. (mils) of water; shake well for ten minutes and add enough water to make 1,000 c.c. (mils).

For making hair oils, crude oil from the Texas fields is preferable because of its greater sulphur content.

Eversweet.—H. J. S., Pennsylvania.—We do not know the composition of this article.

Generally speaking, preparations for preventing the disagreeable odor of perspiration act by doing one of three things, or a combination of two or more of them—they (1) clog the pores of the skin, and so retard the flow of perspiration, or (2) act as an antiseptic, and so prevent the souring of the perspiration, or (3) saponify the grease of the perspiration—the souring of which causes the bad odor. To the first class belong many of the greases and salves; to the second, boric acid; and to the third, sodium bicarbonate. Of course it injures one to stop one's perspiration, and so salves and pastes for this purpose should be used sparingly if at all.

A formula for a preparation which, while a grease, also acts as an antiseptic, is as follows:

Thymol	2 grammes.
Zinc oleate.....	200 grammes.
Boric acid.....	150 grammes.
Petrolatum cold cream.....	650 grammes.

Other formulas for preparations to be used in overcoming the disagreeable odor of perspiration are to be found in the issues of the CIRCULAR for February, August, and December, 1909, pages 79, 400, and 638, respectively.

Kümmel.—F. T. J., New Jersey, wants to make a kümmel more nearly like the imported than he can produce by following the formula for elixir of anise in the National Formulary. He might try the following, by Dietrich, for the Russian *Alasch*:

Oil of anise.....	2 drops.
Oil of bitter almond.....	2 drops.
Oil of parsley.....	5 drops.
Oil of rose.....	3 drops.
Oil of caraway.....	2.0 grammes.
Tincture of vanilla.....	2.0 grammes.
Sweet spirit of niter.....	20.0 grammes.
Alcohol (90%).....	3650.0 grammes.
Sugar	3000.0 grammes.
Water	3500.0 grammes.

Dissolve the oils in the alcohol, and add the tincture, spirit of niter, and the water in which the sugar has been dissolved.

In discussing the food law, a humorous writer in a daily paper says:

You drink your French brandy and then wonder why you have the sensation of a lighted lamp in your stomach and a procession of lightning bugs climbing up and down your throat. But you wouldn't if you could see them when they make it. Kümmel is manufactured out of an inferior grade of canary bird seed, thus explaining why when a man drinks enough of it he flies up on the table and sings himself to sleep with his head under his wing.

Creosote Pills and Dangerous Prescriptions.—

J. L. Lascoff, New York, takes issue with his fellow-townsmen, José Schwarz, on the question of massing creosote for pills. Mr. Lascoff had something to say on the subject at a meeting of the Brooklyn Pharmaceutical Association reported in the CIRCULAR for February, pages 111 and 112. In the CIRCULAR for March, page 141, Mr. Schwarz was quoted as follows:

Just mix equal parts of distilled water and creosote and add powdered balsam of tolu, and see what a fine pill mass you can obtain without the addition of beeswax or any other substance.

Mr. Lascoff now writes that the method he gave for filling the prescription which called for fifty pills, each to contain 0.12 c.c. (mil) of creosote and 0.2 gramme of tolu is to emulsify the creosote with a little acacia, adding the finely powdered tolu with enough powdered glycyrrhiza to make a mass. This, he contends, is the only way in which a small pill can be produced. And he opines that a pill made according to Mr. Schwarz's directions would weigh at least 10 grains, because of the large amount of absorbent required. In Mr. Lascoff's opinion the excessive size of the average drug-store pill is the reason which actuates physicians to prescribe so generally the ready-made variety.

Blindness from Santonin.

In the same communication Mr. Lascoff, referring to an article on "Blindness from Santonin," which appeared in the CIRCULAR for March, page 132, points out the similarity of the results following the administration of oleoresin of male fern together with castor oil, a matter brought up by him in a paper read before the Kings County Pharmaceutical Society, and printed in the CIRCULAR for January, page 19. In this connection Brother Lascoff writes:

I should like to know what steps a pharmacist should take when he receives a prescription of this nature. Several druggists have asked me whether they should fill such prescriptions; and I should like to get your views for the

benefit of our fellow-pharmacists. The dangerous effects of these are known, and in my opinion we should not dispense them unless the physician insists upon our doing so; and in this event it would be advisable to have an extra signature of the writer appear on all such prescriptions, the same as on those in which large doses are prescribed.

Because of the fact that the danger attending the administration of santonin or oleoresin of male fern is increased when either is given in connection with an oil, it is our opinion that the pharmacist receiving a prescription calling for such a combination should call the prescriber's attention to the risk to the patient and endeavor to have the doctor change the prescription. Should the prescriber be unwilling to do this, the pharmacist should insist upon the intent of the prescriber being plainly designated on the prescription. In case this safeguard could not be secured we should refuse to compound the medicine. In no circumstances should a prescription for santonin or oleoresin of male fern be renewed without a written direction from the prescriber; and it would be well to keep it before both physicians and pharmacists, that the use of either drug carries a risk to the eye-sight, regardless of its use with oil; the latter, as we have said, simply increases the risk.

A Delicate Test for Acetanilide.—G. N. Watson, Kansas, supplies the following note:

"Acetanilide when heated together with boric acid over naked flame until the boric acid melts, produces a yellow residue having a peculiar fragrant odor suggestive of sweet clover or arbutus. The yellow color is also produced by phenacetine. Antipyrine produces a pink color and a naphthalene-like odor. Phenacetine produces an odor, but one characteristic of itself, more faint than that produced by acetanilide or antipyrine. With mixtures of the three antipyretics, the fragrant odor produced by the action of the acetanilide predominates. One minim of a 1 per cent, solution of acetanilide is sufficient to produce the characteristic odor, which is intensified by adding a few drops of water to the residue. This test suggests the use of acetanilide as a test for boric acid, the delicacy of which is worthy of investigation."

We thank Mr. Watson for his interesting contribution, which we hope will be found of value by many of our readers, and trust that he will let us hear from him again. His example might be followed by many readers who have interesting matter stored in their heads which should be let out for the benefit of pharmacy generally.

Bed Bug Killer.—H. S. C., Connecticut.—We do not know of anything that will do and not do all that you require. We have been unable to find on this market a bottle of the proprietary preparation you mention, but hope to secure one elsewhere in time. If we succeed we may have something more to say in reply to your query. Insect powder (pyrethrum) is about as effective for killing bed bugs as any insecticide in powder form that we can think of just at present.

Preventing the Fetid Odor of Cancer.—E. S. M., Pennsylvania.—We believe that physicians use for this purpose salicylic acid, applied in the form of an undiluted dry powder. But this is a matter in which pharmacists should not meddle.

Board Questions Published.—During the past score of years or so we from time to time have endeavored to secure for publication sets of questions used by each of the various boards of pharmacy throughout the country. Some of the boards have not responded to our requests. We have printed questions as indicated below:

- Alabama, June, 1910, page 286.
- Arizona, none.
- Arkansas, May, 1910, page 240; September, 1908, page 466.
- California, May, 1905, page 158; September, 1893, page 215; February, 1892. (This board does not give out its questions for publication now.)
- Colorado, April, 1909, page 195; June, 1906, page 214; October, 1887, page 234.
- Connecticut, none.
- Delaware, November, 1909, page 591; November, 1907, page 739; September, 1906, page 338; December, 1904, page 280.
- District of Columbia, April, 1905, page 122; February, 1901, page 43. (This board does not give out its questions for publication now.)
- Florida, October, 1909, page 527; March, 1908, page 127; August, 1906, page 299; May, 1911, page 263.
- Georgia, August, 1909, page 411; July, 1907, page 481; February, 1906, page 60; June, 1904, page 125; December, 1901, page 251.
- Idaho, February, 1907, page 226.
- Illinois, August, 1887, page 188.
- Indiana, January, 1910, page 27; July, 1908, page 326.
- Iowa, none.
- Kansas, none.
- Kentucky, none.
- Louisiana, April, 1909, page 194; January, 1906, page 23; February, 1905, page 57; April, 1893, page 92.
- Maine, April, 1911, page 207.
- Maryland, none.
- Massachusetts, April, 1910, page 181; May, 1906, page 177; January, 1890, page 21.
- Michigan, none.
- Minnesota, January, 1906, page 24; December, 1887, page 286.
- Mississippi, March, 1910, page 127; September, 1909, page 461; April, 1907, page 318; November, 1905, page 399; November, 1904, page 255; December, 1900, page 259; January, 1895, page 20; August, 1894, page 188.
- Missouri, December, 1909, page 643; November, 1908, page 576; June, 1907, page 424; July 1906, page 254.
- Montana, September, 1908, page 435; March, 1905, page 90.
- Nebraska, January, 1911, page 36; December, 1910, page 638; December, 1908, page 621; May, 1907, page 370; November, 1906, page 408; August, 1904, page 185; September, 1897, page 264.
- Nevada, none.
- New Hampshire, none.
- New Jersey, June, 1909, page 298; August, 1907, page 547; August, 1905, page 283; May, 1904, page 108; September, 1897, page 264.
- New Mexico, July, 1909, page 351.
- New York, March, 1911, page 143; October, 1910, page 519; December, 1909, page 642; January, 1909, page 23; January, 1908, page 30; March, 1907, page 274; April, 1906, page 138; January, 1905, page 21; July, 1904, page 157; (City) April, 1898, page 95; March, 1898, page 95; December, 1890, page 285.
- North Carolina, December, 1909, page 641; May, 1908, page 227; March, 1905, page 90; December, 1894, page 286; May, 1892, page 117; October, 1887, page 234.
- North Dakota, March, 1909, page 135; July, 1906, page 254.
- Ohio, March, 1909, page 136; March, 1906, page 99.
- Oklahoma, January, 1905, page 22; (Indian Territory) December, 1905, page 438.
- Oregon, February, 1910, page 72; September, 1907, page 605; September, 1905, page 321; May, 1898, page 120; November, 1897, page 340.
- Pennsylvania, May, 1909, page 243; February, 1908, page 77; September, 1904, page 208; March, 1893, page 69.
- Rhode Island, none.
- South Carolina, none.
- South Dakota, August, 1910, page 424; July, 1905, page 737.
- Tennessee, May, 1911, page 262.

Texas, November, 1910, page 579; April, 1908, page 177; February, 1895, page 46.

Utah, none.

Vermont. This board does not give out its questions for publication, but will send them to other boards, or to colleges, on request.

Virginia, December, 1905, page 439; December, 1900, page 259; June, 1892, page 141; December, 1891, page 286. (This board has discontinued giving out its questions for publication.)

Washington, June, 1905, page 195. (This board has discontinued giving out its questions for publication.)

West Virginia, none.

Wisconsin, February, 1911, page 87; February, 1909, page 81; December, 1907, page 780; October, 1904, page 234; October, 1897, page 314; October, 1895, page 250.

Wyoming, none.

Terpin Hydrate with Heroine.—D. Archie Bullock, South Carolina, who has favored us with notes on other subjects, now writes:

In your March issue (page 139) there is a request from T. A. C., Massachusetts, for some information concerning creo-terpin. I have a formula that I have copied which has the name of Henry Watters signed to it. I give it to you herewith:

Elixir of Terpin Hydrate with Creosote.

Terpin hydrate.....	320 grains.
Heroine hydrochloride.....	14 grains.
Glycerin	8 ounces.
Alcohol (90%).....	16 ounces.
Beechwood creosote.....	320 minims.
Simple elixir.....to	40 ounces.
Elixir of glycerophosphates of calcium and sodium.....	40 ounces.

I color this green by adding a colored leaf to the glycerin and alcohol, and this makes a good green coloring without odor or taste.

We have found this an excellent preparation.

We again thank Mr. Bullock for his kindness and express the hope that he will continue to remember us when he has anything which he thinks might be of interest to our readers to make public.

Henry Watters is a distinguished pharmacist of Ottawa, Canada, a portrait and sketch of whom appear in the CIRCULAR for November, 1909, page 147.

Photographs on Cloth.—"Subscriber," Kansas.—To render silk or other textile fabric impervious to a sensitizing liquid, the surface of the cloth is brushed over with a solution of gelatin in water. Sometimes mucilage of acacia is used as a size for this purpose, but its proneness to deterioration is not conducive to happy results.

Reciprocity between Boards of Pharmacy.—"A Reader," Nebraska.—We answer a query similar to yours every little while. Our most recent answer to such a query appears in the CIRCULAR for March, page 138, and consists of a reference to a column-and-a-half note on the subject in the January number, page 31.

Deodorizing Carbon Disulphide.—F. R. S., Iowa.—In further answer to your query we may call attention to the fact that it is said that the odor of carbon disulphide may be removed by shaking the liquid with a 1 per cent. solution of corrosive mercuric chloride and thoroughly washing with water.

Verbenin.—W. E. B., Maine, asks what this is and where it may be obtained.

In reply to an inquiry from us, the William S. Mer-

rell Chemical Company, of Cincinnati, writes: "We formerly made a so-called resinoid under the name of verbenin, but as its sale was very limited, we discontinued its manufacture some years since and regret that we have none of the article on hand at this time."

Appeals to Readers.—Information is sought concerning the articles listed below. We ask for such help as our readers can give:

Sanford's Liver Invigorator.—F. E. S., Michigan.

Casler's Oriental Paste.—P. P., Illinois.

Fidol.—R. C., New York. Where may it be obtained?

Dirty and Dangerous.

Under this heading the editor of the *California Medical Journal* writes: "One of our members has written to the *Journal* calling attention to a very dirty practice in most pastry stores—and possibly in other shops, though the special case in point was a pastry shop. In many of these, the paper for wrapping packages, cakes, bread, etc., is in sheets and when the saleswoman reaches for a sheet of paper she generally holds the cake or loaf of bread in the left hand and reaches for the sheet of paper with her right hand, dexterously wetting her thumb with saliva to facilitate the quick detaching of the top sheet on the pile. Not infrequently that portion of the sheet of paper which she has moistened with her spittle is then turned in and wrapped against the food that is later to be eaten, thus transferring some of her sputum from herself to other persons. It is in no circumstances a pleasant little proceeding and under some conditions one can imagine it to be very dangerous. Our correspondent, for instance, on one occasion saw a woman whom he knew to be syphilitic and to have mucus patches in her mouth, do precisely this thing; and the moistened portion of the sheet of wrapping paper came in contact with the cake which she was wrapping. Doubtless this is just one of the little things that have not come to the attention of the proprietors of such stores. The use of paper in rolls would go far to stop the practice, for there is not the necessity to wet the finger in order to separate one sheet from another."

Optometry at Columbia University.

The Medical Society of the County of New York recently passed a resolution deploring and condemning the action of Columbia University in establishing a course in optometry and turning loose "dangerous inefficient upon the public, especially as it has a medical department in connection with which it can thoroughly educate them to treat the eyes and correct their refractive errors." The resolution is prefaced by a statement of the well-known reasons why oculists should have a good general medical education.

Bandoline.

The following formula is said to represent the mustache fixative used by one of the most famous Parisian hair dressers:

Extract of malt.....	25 grammes.
Alcohol	45 c.c. (mils).
Rose water.....	400 c.c. (mils).

Tennessee Board Questions.

Herewith are reprinted the questions used by the Tennessee Board of Pharmacy at its examinations held January 17th to 20th.

In reprinting board questions we endeavor to follow closely the nomenclature, spelling, punctuation and capitalization of the originals, our object being to give to our readers, just as nearly as practicable, the questions as they were presented to the candidates:

Pharmacy.

1. To what class of substances do each of the following belong: (a) Assafoetida. (b) Acacia. (c) Sparteine. (d) Copaiba. (e) Storax.

2. (a) Give the Latin name of Tartrated Antimony. (b) Give its medicinal properties and doses. (c) Into what preparations does it enter?

3. (a) What per cent. of Phenol is soluble in water? (b) What will increase the solubility of Phenol in water? (c) What per cent. is soluble in Alcohol?

4. (a) Why is Monohydrated Sodium Carbonate used in the process of manufacture? (b) Describe it and give its medicinal properties and uses. (c) What is the specific gravity of the official preparation? (d) At what temperature is it directed to be taken? (e) What was its specific gravity according to U. S. P. 1890? (f) And at what temperature? (g) Why was this important change made in the 8th revision?

5. (a) What per cent. of Metal does Massa Hydrargri contain? (b) Why is long continued trituration necessary?

6. (a) How would you detect the presence of Salicylic Acid in suspected fruit syrups and juices? (b) From what is Iodine obtained? (c) Name the test for free Iodine in solution. (d) What Acid is formed by Iodine and Hydrogen?

7. (a) What is Formaldehyde the product of? (b) Describe it. (c) What are its medicinal properties and uses? (d) What is it often used for unlawfully? (e) Mention the best antidote for its poisonous effects.

8. (a) Name the Collodions of the U. S. P. (b) Which one contains Canada Turpentine and Castor Oil? (c) What four Collodions are mentioned in the National Formulary?

9. Name antidote for the following and their Salts: (a) Mercury. (b) Antimony. (c) Chromium. (d) Copper. (e) Iodine. (f) Zinc.

10. (a) Name the poison for which Lime or Lime Water is an antidote. (b) Common Salt is an antidote for a certain poison; name it. (c) From what is Methyl Alcohol obtained? (d) How would you detect it in Alcohol solution?

Practical Pharmacy.

1. Translate into English, and convert quantities into Apothecaries weights.

	Gm.	cc.
R Chrysarohinum	2	.6
Resorcinol	0	.78
Traumaticine	29	57

Misce fiat Mistura, et Signa, Agitato vase, Admoveatur bis die.

2. Criticise and state how you would dispense.

R Phenol	3ii
Liq. Calcis.....	3xiv

M. ft. Sol:

Signa, Apply on gauze to affected parts.

3. How would you prepare the following Syrup for dispensing?

R Ol. Sassafras.....	mvii
Tr. Tolut.....	3i
Magnes Carb.....	3ii
Aqua Destil.....	oi
Sacchara Alba.....	3xxii
Morphia Hydrochlor.....	Grs.viii

Mft. Syr: Sec: Artem.

4. Give the correct method of preparing the following prescription?

R Potassil. Chlor.....	3i
Acid Hydrochlor.....	3i
Aqua Destil.....	3iiss
Glycerinum	3iv

Misce fiat Sol.

5. How can granulated Effervescent Salts be quickly and easily made at the prescription counter and how is granulation produced?

6. (a) Why is Ammonia Water used in Aromatic Spirits Ammonia? (b) Why is Aromatic Sulphuric Acid used in Infusion Cinchona? (c) Why is Boiling Water directed to be used in Wine of Antimony? (d) Why is Acetic Acid used in Fld. Ext. Sanguinaria? (e) Why is Sugar used in Iron preparations?

7. How will you test Water to ascertain its fitness for drinking and Pharmaceutical purposes?

8. (a) Pharmaceutical Arithmetic. How many fluid ounces in 500 Grammes of Chloroform Spec. Gravity, 1.49? (b) If 500 Grammes Chloroform cost \$1.05, what will one fluid Ounce cost?

9. Reduce five gallons of Alcohol to 40 per cent. Alcohol. How much water will it take, and how many gallons will result?

10. (a) How would you measure the freezing temperature below the freezing point of Mercury? (b) Convert 20 degrees Centigrade to Fahrenheit? (c) Convert 50 degrees Fahrenheit to Centigrade? (d) Give boiling point of Centigrade? (e) Give freezing point of Centigrade? Give your rule and show figures in converting.

Chemistry.

1. (a) Of what does the science of Chemistry teach? (b) Into what two general classes is it divided? (c) What is the difference between a chemical compound and a mixture? (d) Give an example of each.

2. (a) What is a molecule? (b) An atom? (c) What is a chemical symbol? (d) What is a Base? (e) A Salt?

3. (a) What are Elements? (b) Into what two classes are they divided? (c) Which are liquid at ordinary temperature? (d) Name five that are gases.

4. (a) What is analysis? (b) Synthesis? (c) Specific Gravity? (d) What is the difference between Qualitative and Quantitative Analysis?

5. (a) How is Iron found in nature? (b) How is Ferri Sulphus Exsiccatus prepared? (c) How does it differ in appearance for Ferrous Sulphate? (d) What is the color of the precipitate formed when an Alkali is added to a solution of a Ferrous Salt? (e) When added to a solution of a Ferric Salt?

6. Give official Latin and English names of the following: K C L O₃—NH₄Br—Ag NO₃—As₂ O₃—Na Cl. Give brief physical description of each.

7. White chemical formulae of the following and give brief physical description of each: Potassium Bi-Carb. Oxide Zinc, Yellow Ox. Mercury, Mercuric Chloride, Phenol.

8. (a) What is the official Latin name of Goulard's Extract? (b) What ingredients enter into its composition? (c) What official preparations are made from it?

9. What is the specific gravity at ordinary temperature of the following: (a) Glycerine, (b) Alcohol, (c) Ether, (d) Chloroform, (e) Sulphuric Acid, (f) Nitric Acid, (g) Mercury, (h) Gold, (i) Copper, (j) Simple Syrup.

10. Write official Latin and English name of the following: (a) Copperas, (b) Blue Stone, (c) Sugar Lead, (d) Glauber Salts, (e) Spirits of Sea Salt, (f) Quicksilver, (g) Sal Ammoniac, (h) White Precipitate, (i) Red Precipitate, (j) Tartar Emetic.

Materia Medica.

1. Of what does Materia Medica treat?

2. (a) What are Alkaloids? (b) How many are official? Name principal alkaloid contained in each of the following: (c) Opium? (d) Cinchona? (e) Nux Vomica? (f) Jaborandi? (g) Calabar Bean.

3. Give safe maximum dose of each of the following and state from what source obtained: (a) Sparteine? (b) Codeine? (c) Caffeine? (d) Hyoscyne? (e) Atropine?

4. Give official name, habitat, part used and one official preparation of each of the following: (a) Rhubarb? (b) Wild Cherry? (c) Witchhazel? (d) Golden Seal? (e) Black Cohosh?

5. Give safe maximum dose of each of the following: (a) Asenic Trioxide? (b) Acid Hydrocyanic Dilute? (c) Bichloride Mercury? (d) Tr. Aconite? (e) Tr. Nux Vomica? (f) Tr. Gelsemium? (g) Ext. Belladonna? (h) Chloral Hydrate?

6. Give source and a brief physical description of (a) Menthol? (b) Salol? (c) Salicin? (d) Acetanilid? (e) Santonine?

7. (a) Give official name of Iodine? (b) State from what obtained and how? (c) Name the official preparation

of Iodine? (d) Give antidote for Iodine poisoning? (e) What percentage of Iodine does Iodoform contain?

8. (a) From what is Glycerine obtained? (b) What percentage of Glycerol does it contain? (c) Name five official Glycerites? (d) Why should you not dispense Chromic Acid with Glycerine?

9. (a) From what source is Camphor obtained? (b) How is it prepared for commerce? (c) What is its best solvent? (d) How can it be powdered? (e) Give medicinal properties and dose?

10. Give the meaning of the following terms and one example of each: (a) Antipyretic? (b) Diuretic? (c) Caustic? (d) Emetic? (e) Demulcent? (f) Anodyne? (g) Carminative? (h) Cathartic? (i) Aperient? (j) Hypnotic?

Florida Board Questions.

Herewith are reprinted the questions used by the Florida Board of Pharmacy at an examination held on January 23d, 1911. Other sets of questions asked by this board appear in the issues of the CIRCULAR for October, 1909, page 527; March, 1908, page 127; and August, 1906, page 299.

Pharmacy.

Processes.

1. (a) What is the Pharmaceutical term used for Cutting, Grating, Bruising, Grinding, Etc.? (b) Name three or more apparatuses used for this purpose. (c) What is the object of treating drugs in this manner.

2. (a) What is the difference between a simple and a chemical solution? (b) Name four or more solvents used in Pharmacy in order of their importance, telling the classes of substances each is used for. (c) What process facilitates the solution of a solid substance?

Preparations.

3. (a) What are Tinctures, naming the methods for preparing them? (b) Outline the preparation of one in each class. (c) What are Spirits, naming the methods official for their preparation, outlining the preparation of one by each method?

4. (a) How do Laudanum, Deodorized Tincture of Opium and Paregoric differ? (b) How do Water of Ammonia, Stronger Water of Ammonia, Spirit of Ammonia and Aromatic Spirit of Ammonia differ? (c) How would you make Water of Ammonia from Stronger Water of Ammonia?

Pharmaceutical Arithmetic.

5. (a) A certain formula calls for 70 Gm. Acetanilid, 10 Gm. Caffeine, 20 Gm. Sodium Bicarbonate: how much of each would be required to make 20 ozs.? (b) What is the Pharmacopoeial name of the finished product?

(Pure Food and Drug Law.)

6. (a) The proportions or quantities, contained in each ounce, of what drugs are required to be mentioned on the label? (b) How do you find the percentage of Alcohol in a mixture when the percentages of Alcohol of the various items entering therein are known? (c) Write a correct legal label for the following mixture: Laudanum, 1 oz.; Tr. Arnica, 2 ozs.; Water, 5 ozs. NOTE—Laudanum, (alc., 46%; opium, 10%); tr. arnica (alc., 40%).

Identifications

7. (a) Identify Specimen No. 1. (b) Name ingredients. (c) How is it made?

8. (a) Identify Specimen No. 2. (b) Name ingredients. (c) To what does it owe its characteristic odor?

9. (a) Identify Specimen No. 3. (b) Name ingredients. (c) How is it made?

10. ORAL:—National Formulary Preparations.

Chemistry.

1. What is matter? (b) It is constantly subject to changes, and these may be of two distinctive characters: What are they?

2. (a) What is a synthetic reaction? (b) An analytic reaction? (c) An atom? (d) Molecule? (e) Element?

3. (a) What general rules of solubility may be applied to the Nitrates, Chlorides, Sulphates, Phosphates and Carbonates? (b) Give some exceptions.

4. (a) What is a Salt? (b) Normal Salt? (c) Acid Salt? (d) Double Salt? (e) Basic Salt?

5. (a) Give a definition of the following words as ap-

plied to Chemistry: Proto, Deutro or Di., Sub, Super or Hyper., Per.

6. Criticise the following prescription:

R Protargol	2.0
Cocaine Hydrochloride	.5
Distilled Water	60.

7. (a) A chemical reaction takes place in the making of an official ointment: What is the reaction known as? (b) Give U. S. P. name of this ointment.

8. Give synonyms of twenty Pharmacopoeial chemicals: (Example, Plumbi Acetas: Sugar of Lead.)

9. Give Latin official names of twenty Pharmacopoeial Chemicals. (Example: Hydrargyri Oxidum Flavum.)

10. (a) What is an Alcohol? An Aldehyde? (b) Give an example of each.

Materia Medica.

1. Define (a) Materia Medica; (b) Therapeutics; (c) Pharmacognosy; (d) Toxicology; (e) Posology.

2. Name two manners by which a drug may act as an antidote for another.

3. Define the following terms and give an example of each. (a) Anodyne; (b) Hypnotic; (c) Rubefacient; (d) Hydragogue; (e) Cholagogue.

4. (a) What is meant by the term Alterative? (b) Name one of vegetable origin; (c) Of animal origin; (e) Of mineral origin.

5. What is meant by the term (a) Origin; (b) Habitat; (c) Natural Order.

6. Name five active principles found in vegetable drugs.

7. Would a menstruum composed of Alcohol 1 part, Water 4 parts, extract the active principles of the following drugs? (a) Senna Leaves; (b) Buchu; (c) Hydrastis; (d) Cinchona; (e) Jalap.

8. Nux Vomica: (a) Give Habitat; (b) Origin; (c) Part used in medicine; (d) Active Principle; (e) Official requirement.

9. Give Official Name and definition of (a) Hydrastis; (b) Cinchona; (c) Aloes; (d) Mandrake; (e) Cascara Sagrada.

10. Give Latin name; (b) Use; (c) Dose; of drugs in boxes 1, 2, 3, 4, 5.

Prescriptions, Doses and Toxicology.

1. R Sol. Cocaine Mur. 7% ʒi.

Sig. Local use.

How many grains of Cocaine Mur. would be used in filling the above prescription?

2. R Sol. Hydrarg. Bichlor. ʒiv.

Ft. Liq. of such strength so that when ʒi of the solution is added to 1 quart of water it will make a solution the strength of which will be 1-3000.

3. Criticise the following R:

R Potass. Iodide	ʒiii
Bismuth Sub-Nit.	ʒii
Ess. Pepsin qs.	ʒiii

M Sig. ʒi in aq. q. 4 h.

4. Criticise the following R:

R Bismuth Sub-nit	gr. xvi.
Mercury and Chalk	gr. xvi
Tr. Opii Camph.	ʒii
Aq. Ment. Pip. qs.	ʒii

M et ft. Mist.

Sig. ʒi q. 2 or 3 h. for bowels.

5. Criticise the following R:

R Arsenic Trioxide	gr. i
Tr. Iron Chlor.	ʒiv
Strychnia Sulph.	gr. i
Acid Muriatric Dil.	ʒiii
Syr. Limonis qs.	ʒvi.

M.

Sig. ʒi in aq. ttd p.c.

(Questions 6, 7, 8, 9 and 10 will be oral.)

A writer in the *New York Times* referring to the vitality of old jokes, quotes the one about the little girl who asked the druggist for pills, and when the druggist asked, "Antibilious?" replied, "No, uncle is." He comments: "I have a vivid recollection of having read that in a patent medicine almanac when I was a very small boy." Unfortunately he fails to state how old he is, but he may be a very old man and still be a truthful one.

Correspondence.

Short, timely articles upon subjects of interest to pharmacists are solicited for this department. In order to be in time for publication in the issue of a given month, they should be in the editor's hands on the fifteenth day of the month previous. Anonymous communications will not be published; but if the author expresses a wish to have his name withheld, this wish will be scrupulously regarded and his letter considered confidential.

Advanced Education in Pharmacy.

Newark, N. J., April 6th, 1911.

To the Editor of THE DRUGGISTS CIRCULAR:

The medical profession and the druggist are continually exhorting the legislatures of the various States to raise the educational standard of candidates for the State examination in pharmacy. Some recommend that the candidate be a graduate in pharmacy, and in States where that degree is already required the professions are crying for advanced academic qualifications.

The doctor's purpose in this is not purely an unselfish one. It will unburden him, in part, of the grave responsibilities which he should justly bear, and he may with better grace apportion to the share of the pharmacist the culpability for an inexactness in prescribing, or the failure of results. For a legislature demanding more thorough qualifications will also place greater responsibility on the already over responsible druggist.

As for the druggist, outside of a few high-minded men who honestly desire a more thorough equipment for the sake of pharmaceutical research, this agitation for advanced qualification in the student is mercenary. It is bred of the desire to retard competition. My professional brethren may deny such uncharitable views, but ask each one what fault he finds, if any, with the drug trade in his particular precinct, and the probable reply will be, the keenness of competition, and the metamorphosis of the profession of pharmacy into the drug business. Therefore, let us demand higher standards of the students, and thereby stifle increased competition. My views may shock the druggists, but I hold that this is the logical, though never admitted reason, for the druggists' stand in the matter of increased qualifications of drug students.

But let us view dispassionately and without prejudice the true situation, admitting for the moment that all who ask for such advancement do so with the noblest intent, holding that specialization and the maturity of a rounded education will make the pharmacist far more learned in the science of drugs and chemicals, and more capable and exact in their composition and dispensing. Of what avail is all this learning, capability and accuracy? The druggist no longer compounds; his is the mechanical act of filling bottles, or selling proprietary tablets and pills, even as is the filling of milk bottles or the sale of so many beans over the grocer's counter.

The druggist may think I go to extremes in so commercializing what he would fain call the profession of pharmacy. Here are facts. In nine years of actual and varied service in drug stores, I found that 80 per cent. of the tinctures, fluidextracts, and remaining pharmacopœial preparations were procured from pharmaceutical houses; the druggist did not percolate, macerate or extract in any form the medical prin-

ciples of a drug, nor manufacture the remaining preparations I refer to, but was satisfied to say, "Oh, they are all reliable houses, so I guess they are all right." So much for my personal experience with drug stores, and I dare say from deduction that at least 50 per cent. of our druggists do not manufacture their own preparations. Now, let me ask, how much theoretical knowledge, or rounded out academic knowledge, is essential to compounding prescriptions in a store of this character? Of what avail my exhaustive study of the Pharmacopœia, materia medica and toxicology at a college of pharmacy, when in actual practice a clerk of two-years' standing, with a slight knowledge of the names of drugs and a meager experience in the reading of prescriptions, could have just as well compounded the great majority of such prescriptions as I received during my practice? And as for chemistry, there is a remote possibility of using this science practically in the drug store as it is now constituted. And still my friends in the profession are asking for an academic education to mature the mind of the student and educate him to the responsibilities of a druggist. In their eyes, he needs a specialized training to dispense proprietaries and different medicaments manufactured by the pharmaceutical houses. Why deceive ourselves by the vain empty title Ph. G.? The so-called drug profession has developed into a simple pecuniary business, and the druggists' call for advanced requirements is a conceited tribute to what they know is not a profession but a business.

Is it not true that the department store carrying a side line of drugs and prescriptions, which, by the way, is universally called a drug store, needs no further specialization in the education of its clerks than a simple practical experience? Then why play hypocrites and call for a severe special training for the student wishing to enter the field of drugs? I feel that this is a true exposé of the druggist in his relation to advanced standards of preparation for the student; and I for one stand immutably opposed to such unfair demands on the young man or woman who takes up pharmacy as it stands to-day, now the business.

But let me add that when the physician, by his prescription will demand the theoretical knowledge and deep research of the pharmacist, in short, when the abominable practice of prescribing proprietary remedies, whose value the physician has small means of ascertaining ceases, and when he in person shall stop dispensing from his office, and only legitimately prescribe and continually discourage the use of "patents," will pharmacy be elevated to a profession and call for a deeper learning from the pharmacist: then I too shall acquiesce in the demand for higher qualifications of students of pharmacy.

ISRAEL LESSER, Ph. G.

[The weakness of our correspondent's position is exposed in his concluding paragraph: he seems to depend upon physicians to reform pharmacy by writing prescriptions which no one but an educated pharmacist can fill, and yet says that a pharmacist need not be educated up to the point of being able to fill such prescriptions. Hasn't he placed the cart before the horse? Should not men prove their ability to do certain work before asking that such work be entrusted to them?—Editor THE DRUGGISTS CIRCULAR.]

In Defense of the Big "Cut-Rate" Stores.

By the River, March 21st, 1911.

To the Editor of THE DRUGGISTS CIRCULAR:

Your Chicago correspondent's remarks in March (page 148) provoked me to answer. In his closing paragraph he says that we (the drug clerks) should discourage giving our services to cut-rate stores and also discourage the doing of porter work by registered pharmacists.

Well, it seems to me the best way to discourage porter work by registered pharmacists is to give our services to "cut-rate" stores, who seem to be the only ones able to pay for having such work done by porters.

Let me give you a few facts.

Up to fourteen years ago I had the usual drug clerk's experience—long hours, Sunday work, soda fountain and porter drudgery, and errand boy jobs with frequently a night bell to rob me of my hard-earned rest, etc., etc., with varying wages of from \$18 to \$25 a week. Then I got a position that seemed full of promise. A "new idea" pharmacy was established, thoroughly ethical, no "patents," only prescriptions and sick-room requisites, with chemical, bacteriological and x-ray laboratories, and we started off with a grand hurrah; but unfortunately the "ethical" doctors did not rally to our support sufficiently to make a "go" of the venture, and within a few years the owner's faith in the idea that a real pharmacy would pay was entirely broken up by the failure of the business. The hours of a near-by "cut-rate" store attracted me (for even this kid glove pharmacy's hours were very long and included alternate Sundays), and the opportunity of having my evenings and Sundays to myself was too much of a temptation and I went over to the "enemy."

That was twelve years ago, and I have never regretted that move for an instant; in fact, it has given me an opportunity to develop such as I would not have had if I had remained in the ordinary store. During this last twelve years' service I have gone steadily forward in salary and increased responsibilities until at present I am superintending a number of stores, hiring the help, and overseeing a sales force of about two hundred people. I have a financial interest in the business and am treated with consideration as one of the factors in its success. I can not say that I have any unusual ability, unless it be the ability to work hard and be on the job.

My advice to the drug clerk who is tired of the long hours and disgusted with unprofessional work is to drop the ethical fetich and get right into any live department or cut-rate drug store and plug hard.

This is a commercial age. We want people who know the drug business, yes; but we want men who have business instincts as well. It is an undeniable fact that the average-druggist is not a business man. Go into any drug store and ask for quinine pills, and see if the clerk or proprietor does not ask you if you want about 5 cents' worth. Or ask for glycerin, and the question will be, "I guess 10 cents' worth is about all you need, isn't it?" Look at the display windows. Are they inviting? Can you usually find the proprietor in his store during business hours? Ask the traveling salesman. Now contrast the "cut-rate" store's manner of doing business. If a customer goes into a "cut-rate" store for quinine pills or glycerin, if he does not come out with a hundred pills or a pound

of glycerin it will be because the clerk persuaded him to buy more than that.

The tendency of the times is to concentration of capital, and the "little fellow" in the drug business has an increasingly harder road to travel.

I can truthfully say that our clerks have better hours, better pay, and if not easier work it is real pharmaceutical work and not mopping floors or dishing ice cream. They are contented and happy and they have sufficient time to devote some of their hours to pleasure.

In conclusion let me say that the big "cut-rate" stores, which do the drug business of this country, offer the best opportunities for the young man to learn business methods if he wants to engage in business for himself at some future date, or afford him the chance to advance in salary and position if he does not care to embark in the uncertainties of a business career.

H. G. S.

[Referring to the concluding paragraph of the foregoing, we may say that we fail to see how a man who is simply a cog in a wheel in a big machine thereby receives training which will fit him to become the whole machine. The smaller the store, within reasonable limits, the better the opportunity of the clerk to learn all about business methods.—Editor THE DRUGGIST CIRCULAR.]

A Physician Tells When His Fellow Physicians Should Dispense.

Cincinnati, Ohio, March 27th, 1911.

To the Editor of THE DRUGGISTS CIRCULAR:

Will you permit a few words from another physician, in regard to the question, "Should doctors be allowed to dispense?" As a matter of fairness to all concerned, a matter for which your journal is notable, I wish to say that there are a few points which have been consciously, or unconsciously overlooked. Dispensing on the part of physicians had its origin in part, at least, with the homeopathic physician. Whatever may be the opinion of the individual in regard to homeopathy, there are three facts which should be more generally recognized.

First, homeopathy has existed as a recognized method of medical practice among intelligent people for over a hundred years.

Second, the results obtained in homeopathic practice compare very favorably with those obtained by practitioners of other schools.

Third, homeopathy deserves a large part of the credit for the reduced size of the modern dose, for the tablet triturate, etc., and the use of the single remedy. Now this is not a plea for homeopathy, but the plea of one who has a point to make.

Dispensing on the part of the homeopath is allowable and proper for this reason: The homeopath dispenses a single remedy, provided for him by a reliable house, in a simple menstruum or upon sugar disks; no pharmaceutical knowledge of reactions, compatibilities, etc., is necessary in such dispensing, the questions of dosage and the choice of a proper remedy being the only ones to be settled, and these the qualified physician alone is truly competent to decide.

So, the question, "Should the physician dispense?" resolves itself to this: When the preparation dispensed is a mixture or combination of two or more

substances, the prescription should most assuredly be prepared and dispensed by a capable pharmacist, or at least by an individual who thoroughly comprehends the chemistry and therapeutics of the compounds or mixture to be dispensed. In the case of a prescription, which consists of a single remedy and its vehicle, the physician, as shown above, certainly is within his rights when he dispenses.

Both the druggists who prescribe and the physicians who dispense are numerous, and in the magazine articles published so far it has been too frequently a case of the pot calling the kettle black. In the spirit of fairness, why not discriminate, instead of making sweeping assertions, which are bound to be unjust to some, at least?

CHARLES R. BUCK, M. D.

Opposed to Trying to Sell Stamp Customers Anything Else.

Newark, N. J., April 19th, 1911.

To the Editor of THE DRUGGISTS CIRCULAR:

To ask a customer, "Is there anything else you would like to have?" when selling him a stamp, is a veiled attempt to sell him something.

The purchaser of the stamp, if very sensitive, will buy something although contrary to his intentions; and if he is not very sensitive, he will ignore the request and will reply in the negative.

Stamps are sold for accommodation only, and with no pecuniary purpose. Accommodation, in all its forms, as applied to business, is the best advertising, especially to a business that cannot afford to pay for its advertisement. When one *forces* immediate returns for his accommodation by resorting to such remarks as "Is there anything else you would like to have?" regardless of when or how often used, he not only infringes on the rights and expectations of a customer to be accommodated, but he loses his best medium of advertising.

M. OLSHIN.

Improvement in Drug Clerks' Conditions.

Charleston, S. C., April 16th, 1911.

To the Editor of THE DRUGGISTS CIRCULAR:

I have been a constant reader of your journal so many years that I feel a proprietary interest in it.

I am not a drug clerk, having been in business for a number of years, but I was a clerk first and served eight whole years as such before I aspired to the ownership of a store.

Because I was a clerk in the days when our lot was harder, our hours longer, and pay less than now, I have a feeling of impatience at some of the complaints I read each month. In September of this year I hope to celebrate the thirtieth anniversary of my entrance into pharmacy. When I had been at work about a year I read with great interest a series of letters in your columns written by a retired druggist, whose name I think was H. M. Stone. In his letters he told of the days when he began to work, the hard tasks expected of him and all clerks in those days, and the small pay received and few privileges obtained. At that time I compared my lot with his and marveled at the changes the years had wrought. For many years after that when I felt like complaining at the things required of me I would think of Mr. Stone.

Now, after nearly thirty years' experience, when

I compare the present lot and condition of drug clerks with those of the clerks in the days when I was a junior, I think the present conditions a great improvement. Then I pick up a copy of some drug journal and read a biting, scathing diatribe written by some discontented clerk arraigning his employer as an inhuman monster trying to grind out of each clerk every ounce of endeavor and then throw away the worthless carcass.

I admit that pharmacy is a very exacting mistress, and to the half-hearted disciple she must seem unreasonably exacting. That same axiom applies to every calling in life, however. If a man chooses dentistry and then finds its exactions disagreeable and unpleasant, he can readily decide he has made a mistake and is in the wrong profession. This same rule applies to pharmacy, and when a clerk comes to me complaining of different features of the business as being disagreeable I quickly inform him he is in the wrong profession, and advise him to change to something more to his liking.

In the matter of clerks I have always been fortunate, in that the young men I have employed have been generally ambitious; in fact, four of them are at present practicing physicians, having gone from pharmacy to medicine.

The gist of the whole matter is this: every man is the architect of his own fortune. The successful men, wherever you find them, are those who do not stop to worry about the hard places, but are continually pushing ahead and rising above these annoying and vexing things. This applies forcibly to pharmacy. The clerk who instead of worrying about the unpleasant features is studying how he may improve and help business and further his employer's interests is the one who progresses. The way for him to get more pay is to increase business and to make himself more valuable. The same plan shortens his hours, for more business means more help in the store, and the resulting more favorable arrangements of hours for all concerned.

F. E. DUDMAN.

Still More Board Questions Answered.

Following up the subject of curious answers given by board examinees, we are herewith presenting a number of such answers. In the CIRCULAR for March, page 151, appears the introductory article on this subject, and in the issue for last month, page 209, was a second installment of these answers.

New York.

A. Benzoated lard is made by mixing benzoin with bird gravel, then suspending it in hot lard and straining this.

A. A styptic works upon the spinal column.

A. A styptic enlarges the eye.

A. Styptics are adhesive substances.

A. An inorganic emetic means a salt that will absorb water.

A. Efflorescence means a rose bush in full bloom.

A. Deliquescence means leaving the cork out of the bottle.

A. The official part of koo-soo is pumpkin seed.

A. Plummer's pills are made of lead.

A. Gum opium contains 90 per cent. of morphine.

A. Powdered opium contains 50 per cent. of morphine.

A. Succulent means sucking nourishment from other plants.

A. The definition of alum is to pucker.

A. Part used of benzoin is the root.

A. Camphor is derived from coal tar.

A. Official part of wormseed is turmeric.

A. Serum comes from sage and the seeds of fruit.

A. The official title of oil of vitriol is phenol liquifacatum.

A. Active principle of aconite is niter.

A. Active principle of opium is morphine, cocaine and strychnine.

A. Spirits of mendereris is made of 33⅓ per cent. lunae caustic and 66⅔ per cent. potassium nitrate.

A. Official title of hive syrup is mel.

A. An aperient is something that eases the feelings of a person.

A. The follicles are a part of the body of certain animals like the musk pod of the deer.

A. Cod liver oil is the product of the mammalia.

A. Spartine is derived from spermaceti.

A. Succulent means an excess of bile.

A. A mechanical antidote is lemonade.

A. A supurific is soap tree bark.

Q. For what kind of poisoning should fats and oils not be used?

A. Fats and oils should never be used when the poison is alkalize—as they alkaloyd themselves.

A. Cetaceum comes from bees.

A. Cetaceum comes from the hog.

A. Cetaceum comes from spearmint.

A. Cetaceum comes from the yolk of eggs.

A. Bromine is obtained from urine.

A. Bromine is obtained from the mountain regions.

A. Menthol is derived from wintergreen.

A. Parts used of nux vomica are roots, leaves and tops.

A. 3 drams of cocaine at \$4.50 per oz. would cost 12 cents.

A. Oleic acid has flakey, white glossy appearance.

A. Oleic acid comes from lime fruit.

A. Oleic acid comes from the stomach of a pig.

A. Oleic acid comes from mercury.

A. A lethal dose is given by the rectum.

A. For morphine poisoning give morphine and give it often.

A. Pharmaceutical title of marshmallow is burdock root.

A. Fixed oils are those fixed by the U. S. P.

A. Active principle of monks hood is monkshoodine.

A. Ammoniated mercury is made by mixing mercury and muriate of ammonia.

Pennsylvania.

Q. Name four preparations containing mercury in the metallic state?

A. Mercurial ointment, basilicon ointment, corrosive sublimate.

Q. Give the official Latin name for Donovan's solution.

A. Tr. iodine compositas.

A. Spts. Mindereris.

A. Purified aloes is made by grinding up the drug and passing through sieves to obtain fineness.

A. Thymol is taken from thyroid glands.

A. Deodorized tincture of opium is made from the fluid extract.

A. Deodorized opium is made by treating it with alkalies.

A. To ascertain the value of crude opium, is to powder it.

A. When rubbed across a piece of white paper it should make an uninterrupted line.

A. Powdered opium is much purer, but not stronger than the crude.

A. There is no difference in the strength of powdered and crude opium, the reason for using the powdered opium in making laudanum, is that you can extract all of the properties much easier than from the crude.

A. The difference in strength between the crude and powdered is from 10 to 15 times stronger, so that if you make a pint of laudanum from the crude you will use 29 grains of the powder and about 300 grains of the crude.

Q. Why is it customary at college to learn just enough to pass examinations?

A. Because it seems to be enough until we hit the State board.

A. That is up to the individual, I only made sufficient myself, but if the rest of the class had to contend with what I did this year, probably we would of had one or two more sufficient in our class . . . numerous other things, I do not care to mention. But its over now, so there is no use worrying. Is there?

Illinois.

An old-time Illinois examiner writes: "I asked a candidate to define the word 'pharmacy' and his answer was,

'A wooden sign-board used by some country stores that ain't no drug store.'

"In one of my oral examinations I asked when oxygen was discovered, when hydrogen was discovered, and then, to get an idea of the general intelligence of a candidate and what he knew about chemistry and history, asked him when water was discovered. He answered that it was discovered in 1779. When asked how he came to make such an answer, he replied: 'Well, at the school which I attended the teacher said that it would be better to answer wrong than not at all.'

Name of State Withheld.

A. An atom is a wait used in the metric system.

A. A molecule is also a wait used in the metric system.

A. A chemical symbol is a symbolic term used in chemistry.

A. An element is made up of both atoms and molecules to form a body, as calomel. [He came from Georgia.]

Q. Given I=126, and K=39; how many grains of I are there in 10 grains of KI?

A. $10,000 \div 126 = .071\%$. [Given by an experienced man from Iowa.]

Q. Give a chemical test for HgCl₂.

A. A nitrate.

A. [$\frac{1}{2}$ of $\frac{1}{2}$ was stated to be $\frac{2}{6}$.]

[The following answers to questions in materia medica and botany were given by a college graduate:]

A. The root of a plant is that part that grows in the ground to hold the plant erect; also supplies much food for it.

A. A rhizome is an exudation of plants from wood, bark, roots, usually gummy; example, opium.

A. A tuber is the small tips or twigs, the most tender and growing part of the plant; example, cloves.

A. Five official gums are opium, rosin, acacia, camphor [did not attempt the fifth].

A. Five official oils are ricini, tigtis, pine, cedar, bergamot.

A. Five official roots are cinchona, burdock, sassafras, cotton, colcocyth.

A. Five official leaves are [did not attempt to name them.]

A. Two official infusions [did not attempt this.]

Our invitation to board members and others to send contributions to this series of answers, is still open, and we should be glad to have it accepted by as many as have anything to send.

A Few Curious Answers from Other Sources.

Professor (examining medical student)—If you were called to a patient, what is the first question you would ask the messenger?

Student—Where does the patient live?

Flunkers—I don't think I deserve an absolute zero.

Professor—Neither do I, but it is the lowest mark I am allowed to give.

Miss Clara Evelyn McHugh, a teacher in one of the Topeka schools, says the *Chicago Journal*, read at a recent teachers' meeting from a collection of quaint examination answers that she had been gathering for some years.

The gems of Miss McHugh's collection were:

"A blizzard is the inside of a hen."

"The equator is a menagerie lion running round the earth."

"Oxygen is a thing that has eight sides."

"The cuckoo never lays its own eggs."

"A mosquito is a child of black and white parents."

He who works with his hands only is a mechanic; he who works with hands and head is an artisan; and he who works with hands, head and heart is an artist. —Ruskin.

Some Questions in Drug Store Mathematics.

Here are a few questions which may interest the drug clerk who wants to keep his knowledge of arithmetic bright until such time as he is ready to "go before the board." We invite clerks to send in solutions of these examples and also to contribute problems of a similar nature for publication here. In these examples official strengths, temperature, etc., are to be understood unless the contrary is specified:

1. If the expense of doing business is 20 per cent. of the gross sales, what net profit, in cents, is made on the sale for \$2 of a water bag that cost \$18 a dozen, less 10 and 5 and 2 per cent.?

2. If a lot of quinine sulphate loses $1\frac{1}{2}$ per cent. of its weight by evaporation, and the clerk wastes $2\frac{1}{2}$ per cent. of what is left in filling capsules, how many 5-grain capsules may be filled from a 1-ounce can of the salt?

3. If the freight rate on alcohol is 10 cents per 100 pounds per 100 miles, and a barrel of 50 gallons of alcohol weighs 400 pounds, would it be more economical for a druggist to pay \$2.70 a gallon for a barrel of alcohol on a market 100 miles away, or \$2.67 on a market 500 miles away?

4. What is the cost of the ingredients of 1 gallon of soap liniment, with soap at 30 cents a pound; camphor, 50 cents a pound; oil of rosemary, \$1.40 a pound; and alcohol \$2.75 a gallon?

5. The true leaves taken from a package of so-called belladonna leaves assay just up to the official requirement, but it is found that in the package there are 10 per cent. of twigs which contain only half as much mydriatic alkaloids as the leaves, and 5 per cent. of inert adulterant. What will the complete sample assay?

6. By retailing a box of 50 cigars at 10 cents each a druggist would make a gross profit of 25 per cent., but the clerk and the doctor each smoked one "on the house," the druggist gave one to a customer as a sample, and a dead-beat bought three and neglected to pay for them. What was the gross profit on what remained, at 10 cents each?

7. It being desired to dilute 6 official average doses of lemon juice with sweetened water so that 10 parts of the juice will be present in 100 parts of the finished product, how much of the juice and how much water should be used?

8. If $2\frac{1}{2}$ fluid ounces of a spirit weighs $1\frac{1}{2}$ apothecaries' ounces, what is the specific gravity of the spirit?

9. If $1\frac{1}{2}$ fluid ounces of a solution weighs $2\frac{1}{2}$ apothecaries' ounces, what is the specific gravity of the solution?

10. A quantity of salt is dissolved in a fluid ounce of distilled water, which is then found to weigh 470 grains. What is the percentage strength of the solution?

Answers to March Questions.

- \$36.96; \$29.41. (A year is reckoned as 52 weeks of 7 days each).
- 16.21.
- About 1/59.
- 8.93—.
- 9 pounds, 1 ounce, 192 $\frac{1}{2}$ grains (specific gravity of alcohol being reckoned at 0.809).
- About \$69.42.
- Stock solution, 2 drams, 33.6 minims; water 7 ounces, 5 drams, 26.4 minims.
- 66% grammes of the 7% sample, and 133 $\frac{1}{3}$ grammes of the $2\frac{1}{2}$ % sample.
- 0.872+ %.
- 10.2 grains of cocaine; 436.8 grains of water.

Answers to April Questions.

- 22 cents.
- 5.064+.
- Drug clerk; about 4 cents an hour. (The clerk receives about 23 cents an hour; the car conductor, about 19 cents an hour.)
- Clerk's earnings for eleven years, less college fees, \$69.70; physician's annual income, fifth to eleventh years inclusive, to make his earnings, less college fees and office expenses, equal those of the clerk, \$1593.
- Profit, first year, \$517.68; second year, \$7118.80.
- Stationery, \$180.
- About \$1.95.
5. (Water, 7 pints.)

- A small fraction less than 1 ounce.
- Potassium, 72.78 grains; iodine, 235.82 grains.

If anyone has any objection to the discontinuance of this feature of the CIRCULAR we should be pleased to hear from him.

Elixir of Cinchona.

The following formula is given for elixir of cinchona by Dung (*Pharm. Zeit.* through *Pharm. Weekbl.*):

Cochineal	7.5 grammes.
Star anise seed.....	7.5 grammes.
Caraway seed.....	7.5 grammes.
Cardamom seed.....	7.5 grammes.
Coriander seed.....	30.0 grammes.
Ceylon cinnamon.....	30.0 grammes.
Orange peel.....	60.0 grammes.
Cinchona calisaya bark.....	120.0 grammes.
Brandy	125.0 grammes.
Alcohol	500.0 grammes.
Water	1000.0 grammes.

Macerate for eight days, filter and mix the filtrate with 1250 grammes of simple syrup.

One of the principal differences between this formula and that of our National Formulary is that this one calls for simples while the one official with us calls for preparations made up from the same or somewhat similar simples. Of course, under the federal and many of the State laws, a preparation sold under an official name must be of official strength, quality, etc.

Three New Wart Removers.

I.

Resorcin	1 gramme.
Salicylic acid.....	1 gramme.
Calomel	1 gramme.
Wool fat.....	20 grammes.

II.

Glacial acetic acid.....	10 grammes.
Precipitated sulphur.....	20 grammes.
Glycerin	32 grammes.

III.

Alcohol	1 ounce.
Salicylic acid.....	enough to saturate.
Castor oil.....	50 drops.
Apply by dampening (warts or corns) twice a day.	

Barb-Wire Liniment.

Linseed oil.....	1 pint.
Saltpeter	1 ounce.
Sugar of lead.....	1 ounce.
Sulphuric acid.....	1 ounce.
Phenol	4 drams.

Mix cautiously, secundum artem.

This is not a lotion; it should be used sparingly, by applying with the tip of a feather.

Menthol Pencils.

Menthol	100 grammes.
Benzoic acid.....	10 grammes.
Eucalyptol	3 grammes.

Melt the ingredients together at the lowest temperature possible, mold the mass into cones, and allow these to cool in a covered vessel.

Fighting the Narcotic Evil.

Two physicians of San Diego, Cal., were arrested at the instance of the California Board of Pharmacy on a charge of selling morphine and cocaine to drug habitues. Both plead guilty and were sentenced to pay fines of \$250 and \$100 respectively.

A number of additional convictions have been secured by the Pennsylvania Board of Pharmacy in its crusade against the illicit sale of narcotics at Pittsburg. Many of those charged with the illegal sale of cocaine in nostrums offered the plea that they believed that the guaranty under the federal food and drugs act exempted them from the provisions of the State anti-narcotic law. In imposing the sentences Judge Marshall Brown severely censured the druggists for failing to keep informed as to the laws regulating their business.

On the appeal of a Savannah man convicted of selling cocaine contrary to the provisions of the State anti-narcotic law the Georgia supreme court has upheld the constitutionality of the act which restricts the sale of cocaine to the filling of physicians' prescriptions. There has been some difficulty in securing convictions of cocaine-prescribers in Atlanta and also of the druggists to whom the cocaine prescriptions were generally directed. Prosecutions under the law must be made by the county attorneys and must be sanctioned by the commissioner of agriculture and the attorney-general. The Atlanta Drug Association recognizing the unwieldiness of this procedure has called upon the wholesalers of the country to cut off the supply of cocaine from druggists using unnecessarily large quantities.

The grand jury at Toledo, Ohio, recently issued a formal warning to the druggists of that city stating it to be the intention of the prosecutor's office to deal severely with illegal sellers of narcotics. The Ohio Board of Pharmacy is carrying on a State-wide crusade against illegal drug-sellers. Several of the local branches of the Ohio Pharmaceutical Association are aiding the authorities to secure convictions. A Cincinnati druggist has been convicted and fined \$50.

Legal assistance has been secured by the Retail Druggists' Association of Dallas county (Texas) in an endeavor to prevent the illicit sale of narcotic drugs in the territory of the association.

At Portland, Ore., the police have been waging war on the peddlers of narcotics. Several sellers of cocaine have been apprehended.

Would Wipe Out "Patent" Medicine.

"Would not your interpretation of the pure food law break up the patent medicine business?" inquired Justice Lurton of Solicitor-General Lehmann, during the argument of the Johnson case, involving alleged misbranding of medicines, to-day, says a press dispatch from Washington, dated April 13th.

"It probably would, and I know of nothing within the scope of congress that would be more beneficial," answered the solicitor-general.

The Deadly Wood Naphtha.

Five persons died at Horton, N. Y., several weeks ago as the result of imbibing diluted wood naphtha for purposes of intoxication. The newspaper reports have it that the spirit was obtained from a druggist of a neighboring town by one of the victims who it is alleged asked for alcohol to be used as a beverage.

Three members of a Brooklyn (N. Y.) concern were convicted recently in the local federal court on a charge of selling beverages containing wood naphtha. The criminals were sentenced to pay a fine of \$250 each and to serve prison terms of nine, four, and three months respectively.

Suit has been brought in the federal district court for Rhode Island against a Westerly drug firm, in which a widow seeks to recover \$10,000 damages for the death of her husband which she alleges was produced by his drinking "whisky" containing wood naphtha sold by the defendant concern. It is reported that more than a dozen proposed cases of a similar nature are awaiting the outcome of this suit.

Fritz Lueder, of Peoria, Ill., has been appointed a member of the advisory board of the University of Illinois School of Pharmacy to succeed Frank Thomas, of Cairo.

New York City to Have a New School of Pharmacy.

Plans are fast nearing fruition for the opening of a department of pharmacy in connection with the Fordham University School of Medicine in this city. Were it not for some delay in the construction work on the new building for the medical school all arrangements would now be definitely settled. As it is, the new department will be opened when the medical school year of 1911-12 begins in September.

It is largely through the efforts of Dr. V. E. Sorapure, pro-dean of the medical school, that this new venture is being embarked upon; and the pharmacy school will be under his supervision. To a member of the CIRCULAR staff Dr. Sorapure spoke of the purpose of the projected school as being to make pharmacists of high scientific and professional attainments, and not to make money. The Doctor is firm in his belief that there is a growing demand among the more enlightened members of the medical profession for a class of pharmacists who are able to relieve the physician of the technic of laboratory diagnosis. Dr. James J. Walsh, the dean of the Fordham medical school, has publicly expressed the same views. It is not to be wondered at then that the curriculum and the requirements of the new department of pharmacy have been arranged with the view of supplying the aforementioned demand.

In the faculty of the new school the chairs of chemistry, anatomy, physics, physiology and biological chemistry, and bacteriology will be filled by the men occupying similar positions in the medical faculty. In a like manner the lecturers in clinical pathology, botany, and zoology have been selected. The lecturers in materia medica, experimental pharmacology, pharmacy, and food and drug examination have yet definitely to be chosen.

The courses to be given to the students of the proposed school will lead to two degrees: that of bachelor of pharmacy, and that of doctor of pharmacy. The bachelor's degree will require attendance during three full terms aggregating 1,475 hours of instruction. The doctor's degree may be obtained in a four years' course or a special three years' course. It will be required of candidates for admission that they have a pharmacy student's certificate from the regents of the University of the State of New York, and that they be of good moral character. To receive the bachelor's degree the student will be required to pass examinations in the subjects embraced in the curriculum, and before beginning the third year of study, to pass the examination in English or logic required of students finishing the freshman year in a university recognized by the regents, and to be twenty-one years of age. The doctor's degree will be conferred upon students who have satisfactorily finished the course provided in the curriculum and have before the beginning of their third year passed an examination in English, Latin and logic as required at the completion of the first-year term in a recognized university.

The subjects of instruction will be:

For the bachelor's degree—General, analytical, organic, and pharmaceutical chemistry, physics, botany, zoology, materia medica, pharmacy, bacteriology, experimental pharmacology, food and drug examination, and clinical pathology.

For the doctor's degree—The same subjects allotted to candidates for the bachelor's degree together with physiology, physiological chemistry and hygiene; attendance at anatomy lectures, demonstrations and recitations will also be required.

Chains of Stores Growing.

The sixth store of the Owl Drug Company at San Francisco, Cal., was opened April 1st. The seventeenth store in the Owl chain will be opened at Sacramento, in July.

A Riker drug store is being opened on one of the principal corners of the main street at Trenton, N. J. So far this is the southern limit of the Riker chain which has links as far north as Massachusetts. Springfield is the latest city in that commonwealth to be selected by the Riker concern.

It is announced that by the sale of red cross Christmas stamps last year in New York State outside of this city and Buffalo the amount of \$31,160 was secured for anti-tuberculosis work.

DRUG STORE ADVERTISING

By M. P. GOULD, of New York

In this department some of the fundamentals of successful drug store advertising will be expounded each month. The aim is to correct errors of advertising and establish the most profitable and advisable methods of building up retail drug trade by means of the powerful influence of advertising.

Advertising as an Adjunct to Selling.

There are no fixed, clearly defined laws of selling or of advertising. Albeit I have heard many arguments in favor of the "science" of selling and many arguments in favor of the "science" of advertising, after hearing them all, I am ready to repeat that as far as I can see, there are no clearly defined, fixed laws of selling or of advertising. Few, if any, will contend that there is a science of painting; that there is a science of music, of oratory, of personality. These things are all fine arts. They are not sciences.

In regard to selling and advertising, the best that can be done is to catalogue observations, describe experiences, and analyze accomplishments. That is but another way of saying that advertising as well as selling is largely a matter of personality.

No matter how important may be the position that some other man holds, it seems to me that one of the most important things in the advertising business to-day is that each man think clearly and accurately, with his own observations and experiences as a foundation.

It seems to me to be an error to pay too much attention to the principle that everybody should "boost the game" no matter what phase of the game may be played. Advertising is not a beautiful butterfly which will be killed if you touch its wings, neither has it a made-up complexion that will be ruined by a bath.

One of my reasons for selecting my present subject, worded exactly as it is, was that I thought that possibly I might be of service to some advertiser in stating my views regarding "selling as an adjunct of advertising." Manufacturers and advertising agents with whom I have discussed this subject have without exception said that any attempt to make selling subservient to advertising is unwise, nonsensical, preposterous.

In discussions of this kind there is always the danger that, while one speaker will be talking about advertising and the other speaker will be talking about advertising, the two speakers will not be talking about the same thing. There are those who say that selling and advertising are

one and the same thing. Perhaps an advertisement in a magazine induces a man to buy a talking machine, and that man likes his machine so well that he recommends it to six of his friends. Those six friends each go and buy a similar machine and in turn each influences six others to buy machines of the same make. The result is that one advertisement sells forty-three machines. That is what is called cumulative effect in advertising. But suppose that after the first man had purchased a machine, he had not liked it, then he would not have persuaded his six friends to buy that machine, and those six friends would not have persuaded their thirty-six friends to buy that machine. One sale would have been made instead of forty-three. What is that: selling or advertising?

There was the same advertising; but there was not the same selling. Selling is not advertising, nor is advertising selling. In the first case there was one sale made by advertising and forty-two sales made by selling. In the second case there was one sale made by advertising and no sales made by selling.

A good many years ago I learned that the same results could not be expected from the same advertising used by two different retail stores, both stores being influenced by similar conditions and using the advertising matter under similar conditions. The reason for this was that one store had back of its advertising a long line of good store management, of good service to its customers, of progressive methods in retailing, and the advertising was merely a description of its methods, a true photograph of the store. The other store had been backward, unprogressive, giving unsatisfactory service to its customers. The conclusion of some people with regard to this situation would be that the selling in the first store being an adjunct of the advertising made that advertising successful; whereas the lack of selling as an adjunct of the advertising of the second store made its advertising a failure. That is not the correct conclusion, because—and I have seen it in hundreds of cases in retail stores—the first store with its progressive methods had made a success of selling practically without advertising, while the second store doing several times as much advertising had never been able to make its advertising pay.

Right here let me say that there is nothing in this whole country that we need so much as clear and accurate thinking. In every line of industry and in every line of activity, we have so many "special interests" that it is often very hard to get at the facts. I do not mean to say, or even infer, that it is not perfectly proper for the newspapers to try to get as much of a manufacturer's appropriation as they can. Nor do I think it is improper for the magazines or bill boards, electric signs or street cars, fence signs or novelties, moving pictures or printers, sample distributors or other publicity mediums each and all to get as much of the appropriation as they can. However, after

the arguments of all of the legitimate and perfectly proper "special interests" are in, then it is up to the manufacturer or his advertising agent to analyze all arguments and determine which is the particular line of advertising and selling that will bring the most results for the least money. In the eyes of some it might be rank heresy for one to say that it is the duty of every advertiser and every advertising agent not to try to create the largest advertising account, but to strive for the largest results with the smallest adequate advertising appropriation.

The talking-machine business has grown with enormous strides. It would be an easy way to credit its suc-

The man who puts up your medicine is the man who guards your health.

The result of medical treatment depends largely upon the quality of the medicaments, and the manner in which they are prepared. It is the man who puts up your medicine that guards your health. On his knowledge of drugs, his care in the selection of them, and his skill in compounding, your health depends.

Bring every prescription direct to us and be safe, in that it will be compounded with the right ingredients and as the doctor wishes. The results that follow its use are those to be expected by the doctor.

(Name and address)

cess to advertising alone. However, anybody who has ever had a glimpse of the tremendous things that the talking machine people are doing, how they are getting the greatest artists in the world to produce records, will know that advertising is only the out-croppings of the golden ledge to show the prospector where to dig. First of all it is the actual achievements of the management which have made the success. Secondly, it is the selling organization. Thirdly, it is the advertising which has interested the public in those achievements, which has put the cap-stone on the success. To say that the advertising would have made the success without the selling is foolish; to say that the selling could have brought the success without the achievements of the factory would be foolish; to say that the selling should be subservient to the advertising is in my opinion also foolish.

It is said that \$135,000,000-worth of automobiles were sold in this country last year. I am told that the highest-quality automobile company in America divides its gross receipts into three parts: One-third for manufacturing the cars; one-third for selling them; and the other third for profits. Anybody who knows of the elaborate methods of selling employed by this company knows that it is the selling that makes the business—with the assistance of the advertising. The selling is not subservient to the advertising. The advertising is an adjunct of the selling. There is another automobile company selling a high-class car, which spent \$6,800 in New York newspapers last year and sold \$450,000 worth of cars in New York city. Anybody who is acquainted with the methods used by this company knows that their advertising was a secondary, although a very essential, part of the plan. I do not contend for one minute that those successes could have been made without the advertising. I merely say that the advertising was subservient to the selling methods.

The old bicycle business was a gloriously advertised business. It went to pieces. Some people think it went to pieces because a "trust" was formed and the advertising was stopped. My understanding is that the "trust" was formed for the purpose of saving the business, because, as a whole, it was in such a precarious condition. The bicycle business would probably have gone "down and out" if a number of men who were interested in a particu-

BUGS

ARE A

BOTHER

BUGS are a nuisance and a pest; they are not at all an essential part of the domestic economy, despite their ubiquitousness. Bugs in the beds, bugs in the carpets, bugs in the rugs, and bugs in the clothes; they are apt to be on hand at this time of the year.

We have all the popular brands of bug destroyers for *ants, roaches, bedbugs, moths, fleas, mosquitoes, chinch bugs, potato bugs, and flies*; new goods with all the power and action of freshness, some in liquid, some in paste and some in powder form; put up in all sizes of cans and packages, so that you can have as much as you want or as little as you want.

The popular anti-moth preparations are all here: camphor, cedar chips, paper wardrobe bags, etc. Insure yourself when you pack away your winter furs and clothing, and know that you will have them ready and in good condition next fall.

Start early to wage unceasing warfare against the pesky, disease-disseminating house fly. Get your ammunition here: fly paper, fly traps, pastilles—we have the full armament.

(Name and address)

lar part of the bicycle had not gotten together and worked for the upbuilding of the trade, in order that they might have a market for the part of the bicycle which they made. Their methods were not spectacular; they did not squander a fortune in advertising. They took off their coats and rolled up their sleeves and went to work on the A B C methods of selling.

The result has been that for the last four or five years we have seen practically no advertising of bicycles. Therefore many uninformed people have thought that the bicycle business was dead. It may be astonishing to know that one firm last year sold 75,000 bicycles; that there were sold in the United States last year 485,000 bicycles, a larger number than was ever sold in one year in the very heyday of the bicycle "craze."

Now the bicycle business having been put on a firm foundation, bicycle advertisements are appearing in magazines, mail-order journals, newspapers, and every other form of advertising mediums. I said to a manufacturer a short time ago, "The bicycle business is coming back." His reply was, "Wake up! It's already here."

So it has been in the shoe and leather industry, in the knitting industry, and the textile industry: selling methods have come first, and sometimes the part played by advertising has been a rather minor one. Some concerns have got along better on the strength of their selling systems alone than they have with the assistance of advertising. The reason for this, as I see it, is that the men superintending the advertising did not understand the proper relation between selling and advertising. Manufacturing concerns were employing expensive sales forces. To them have come advertising men who have opined that by cutting 25 per cent. off this expense and investing the remainder entirely in advertising, the sales force could be dispensed with. That was foolish advice. Practically every manufacturer who has tried it, soon realized his mistake. The next thing was that some advertising man went to the manufacturer and said, "This is the plan of advertising that I should suggest. Take your whole selling force and make them help you put this plan of advertising into operation." This plan has been tried by some manufacturers and in some cases it also has proved a failure. Why? Because the salesmen had grown old in the business. They have not been able to change

their methods and become enthusiastic advertising men. The methods which have proved most successful in the past, and the methods which are proving most successful to-day, and in which will be the greatest line of development in the future, are those methods which first of all recognize the possibilities of the goods to be advertised; that organize a selling force which could put those goods on the market successfully without advertising, and organize an advertising department that will put more life and more vitality and more efficiency into that selling organization, helping every salesman to sell more goods, using advertising as a powerful lever with which to increase the amount and the profits of his sales.

Not a word that I have said here has been meant as a hostile criticism of advertising. Far from it. I want advertising to come into its own. I want every manufacturer and every retailer to advertise so successfully that he will believe in advertising as I do. When that time comes, it will not diminish the amount spent for advertising; it will double it, yes, quadruple it, because advertising will be continuous not spasmodic, and the returns will be adequate.

The Traveling Drug Salesman.*

By ONE OF 'EM.

"You traveling salesmen certainly have a snap," is a phrase that I'll wager every "Knight of the Grip" has had passed up to him at least twelve times a year for every year he has been on the road.

The "Boys" have long since given up the task of trying to explain how it is possible for us not to have a "snap," therefore simply answer "Sure," and let it go at that. This answer, however, only convinces this individual at large that his reasoning powers are in prime condition to weigh such weighty matters, and it is the intention of the writer to enlighten such folks on this interesting topic.

Do not think for one moment that the writer has taken a day off to scribble this article, for such is not his good fortune. It has been written by bits while riding on trains and waiting at depots for late trains.

Delayed trains are occasionally experienced; in fact, they have a happy faculty of being late at all times. This, however, is only a slight inconvenience, as it only necessitates your "hanging around" the depot from twenty minutes up to two and three hours. (The other day the writer waited at Exeter four hours and ten minutes and only had to ride seven miles.) Of course, the agent doesn't come right out and say "four hours late." He just says 20 minutes late and you sit and wait. At the end of twenty minutes you note no engine comes thundering down the track, nor can you even see the headlight, so you again inquire. This time it's "reported 45 minutes late," and so until the train does finally arrive. Many is the time you miss meals by just such actions.

The average working hours of a commercial salesman are from seven in the morning until nine at night. This allows for eating early breakfasts, catching early trains, writing up orders and answering correspondence after supper and for riding on late trains in order that you may "make" the next town on the following morning. This for six days a week. After working all week under such conditions you will naturally conclude that his Sundays were a day of rest—but listen. If he is working for a large commercial institution he will find a large wad of mail awaiting his arrival on Saturday night. This wad includes general correspondence, instructions from every department manager and about fifty new price sheets that you have to get on speaking terms with before filing same away in your "28 pounds of printed matter."

You would hardly be so cruel as to expect him to arise at seven o'clock on Sunday morning, so with your kind permission he "hits the floor" at about eight-thirty o'clock, shaves, dresses, breakfasts and hangs around the lobby talking to the clerk, some of the other "C. S." or reading the local papers. Luncheon is soon eaten and over with so he can tackle the above mentioned "wad" and so occupy the balance of the day. In the evening he may visit a ten-cent moving picture show.

Friends—yes, you get acquainted with a number of buyers, clerks, hotel managers, clerks, call-boys, waiters and waitresses, bus drivers and a number of railroad conductors. You get so well acquainted you call them all by their first name (excepting the buyers), but you have not made any social friends whom you can call upon with your wife

or lady friend, as would be the instance when living at a permanent place. You never spend any evenings at home, whist parties, theatre parties or the such. In fact, you spend a great many evenings at the depot waiting for late trains.

By the way of recreation you have the "call-boy" appear every morning at your door, bang away and yell out, "Five o'clock," or whatever the appointed hour may be. You eat breakfast anywhere between 5.30 and 7.30 A. M., luncheon between 11 P. M. and 2 P. M., and dinner any time after 6 o'clock. Absolutely no schedule of regular hours at all; in fact, sometimes you only eat two meals a day; you live in and out of a suitcase and never know what it is to have a nice, cosy flat or comfy cottage. Most of your "days at home" are spent at hotels with the pitcher and bowl combination, and needless to say, the water is always cold, and especially in winter.

The meals are what the "natives of the town" pay twenty-five cents for and for what you pay fifty. The rooms at \$1 a sleep are what you would hesitate in paying \$6 a month for in any large city.

Mail you expected at Stockton has been forwarded on to Merced, and by the time you reach there you are advised that it has either been reforwarded further down the line or back to point of origin. Nice, isn't it?

When business is good, those sitting behind desks in the house will tell you how they have increased the volume of sales over the same period of the previous year, but when business is quiet they will tell you that the "men on the road" are not giving their particular commodities any attention.

Some days business is good, then you feel like a two year old—some days it is only fair, but you nevertheless think of "Billiken;" and then some days it is fierce, or so fierce—but what's the use of trying to describe a commercial salesman's degrees of feeling. There are too many of them not to mention colorings such as blue, green, red, etc.

Some days you have indigestion, some days toothaches, and other days, other aches. Some days the buyer is a perfect gentleman, some days he's a—well anything that isn't. Some days you wait but two or three hours to interview him and then some days you wait and wait, even if the only afternoon train does leave in an hour.

Some days it is rather warm, about 115 degrees in the basement and then there are days when you hate to disturb the water in the pitcher for fear of getting it all over the nice carpet, when breaking it with the soap dish. Fine weather this to shave in.

Yes, summarizing the whole situation I believe some "traveling salesmen certainly have snaps."

P. S.—Any young and innocent clerk wishing to go on the road can secure additional inside information by addressing the writer care of *Retail Druggist* and enclosing a 2-cent postage stamp for reply.

Some Legislative Efforts.

Senator Owen, of Oklahoma, has reintroduced his bill to provide a more efficient federal supervision of matters of public health through enlarging the scope of the public health and marine-hospital service.

Representative Turley has introduced another bill in the New York legislature. This time he is seeking to regulate the dispensing of prescriptions and the measure he is fostering provides that a statement of all the drugs included in the medicine must appear on the label, together with the license number of the compounder. The bill to limit the sale of hypodermic syringes to physicians and dentists has been passed by both houses.

Pennsylvania law-makers are threshing over quite a crop of pharmacal measures. For obvious reasons the greatest amount of newspaper publicity is being given to the several bills that provide for the publishing of the formulas of nostrums. The proposed new pharmacy law and the professional education prerequisite bill are being given much attention in drug circles.

Saccharin Tabooed.

A fiat went forth from the federal board of food and drugs inspection April 28th forbidding the use of saccharin as a sweetener in foodstuffs after July 1st. This edict is the outcome of the investigations by the referee board of experts.

*From the Retail Druggist.

SODA WATER SUGGESTIONS.

Plant a Tree.

In these warming-up days the soda-water man should get in at all points on the growing thirstiness of the public. He should make the most of his most strategic and advantageous plan of attack: the window show. Our suggestion for this month's attracter of passing thirsty ones is the following:

Get a tree or at least a goodly bough, one with an expansive spread of branches and plenty of "points" (as they say in describing a pair of antlers). "Plant" this tree securely at a suitable point in the window. By means of thin wires and thread fasten as naturally as possible on twigs and branches fresh or artificial fruit of every sort: Pineapples, oranges, strawberries, cherries, bananas, grapes, every sort of fruit obtainable. Then glue on a variety of leaves (these may be cut from green paper of various shades) enough to give the tree the appearance of life, but not so many as to conceal the fruit.

Cover the floor of the window space with a layer of green-dyed saw-dust, and scatter a medley of fruit and leaves on this ground. At each end and along the back of the window floor set natural or artificial flowers in beds or in pots. For the background use a light-blue cloth hung with sprays and festoons of blossoms.

Place prominently in the foreground a large white cardboard decorated with pasted-on flowers or pictures of flowers and bearing this legend:

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.....
:           The Ever-bearing           :
:           Tree of All Fruits.         :
:   Your favorite fruit is always in season :
:           at our fountain.           :
.....

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Stick smaller cards on wires in the grass, and place some more in the tree. On these have the names of fruit drinks, a descriptive adjective and the price. These cards may well be decorated with fruit and flower pictures.

A Rocky Story from the Rocky Mountains.

E. L. Scholtz is one of the most successful druggists in the West. He is president of the Scholtz Drug Company, owning a chain of something like half-a-dozen stores at Denver. When approached on the soda question by the CIRCULAR, Mr. Scholtz side-stepped by saying that nothing he could offer would be of any advantage to the business at large, as so much depends upon purely local conditions.

Mr. Scholtz did "loosen up" a bit, however, and uttered a few words of wit and wisdom apropos like this: "Of course, we encourage the introduction of new drinks after they have been well tried out, but no matter what we might suggest to you, statements by your readers to the effect that we did not know our business would not be lacking. For instance, when I am in New York I go into the stores where the best fountains are, and ask for a mixed drink of some kind, and receive something entirely different from that which is sold under the same name in our city. In case I commence a conversation with the man behind the counter I soon learn that discretion is better than my knowledge, because he will beat me out of my position with the superiority of his information on the subject, showing clearly that the man behind the counter is the boss of the situation. I had a very amusing experience at the fountains of a big New York chain store last fall which taught me to keep still on the soda water subject."

Two Contributed Formulas.

Parker's Pharmacy, Dorchester, Mass., enjoys a good demand for two fancy concoctions, and Mr. Parker is kind enough to tell, as follows, how he makes them:

Maple Royal.

Place two nabisco wafers side by side on a plate. On one drop a small scoopful of vanilla ice cream; on the other, a similar quantity of chocolate cream. Over the whole pour some maple syrup.

Pickle-Lime Soda.

Into a mineral glass put a small scoopful of cracked ice. Over this squeeze half a lime, dropping in the rind. Add an ounce of lemon syrup and fill with plain soda. Serve with two straws.

Soda and Lunches "While You Wait."

"If we were asked to give in the fewest possible words the mainspring of our success in the soda business," says C. B. Heimerdinger, of Newcomer's Drug Store, Toledo, Ohio, "we should say, Service, and things that taste better than people usually get."

"Newcomer's" is a large and busy store in the down-town shopping center of Toledo. When the store was opened some four years ago an unusually well written, handsomely illustrated, and neatly printed booklet was issued, from which a few quotations are here made:

Thus far only the left-hand wall furniture has been described, but doubtless your eyes have strayed more than once to the very modern diamond-shaped tables, which stretch in a long row down the middle of the room. [In the photograph there seem to be eight or more of these tables.] The silver tumbler holders on their plate-glass tops and the seats which swing beneath the tables, at once disclose one of the purposes of these pieces of furniture, but closer scrutiny reveals still further uses for them. In the first place these tables are really small show-cases, and display to good advantage many of the more ornamental sorts of packages which come from the modern drug house. The sugar-bowls indicate that more things are served on these stands than come from a soda-water fountain. Here, then, is one of the more notable ways in which this modern drug store differs from the old-fashioned drug shop, for appetizing luncheons may be had at all hours. These viands are served upon the up-to-date system known as "combination lunches," by which everything from a refreshing cup of chocolate to a repast suitable for the noon-day meal, may be ordered and swiftly furnished.

The modern drug store in a shopping district must be a rest room, among many other things, and certainly Newcomer's with its artistic surroundings, its general tone of restful luxury, and the perfection of its service, admirably fills this latest requirement of the busy shopper.

Naturally such a store as Newcomer's is as much in advance in its soda-water department as it is in all other respects. A goodly sized booklet might be written on the fountain alone. You will first note that the arrangement is wholly new. The fountain and its equipment are in two parts; one being the fountain proper, which is placed on the counter line, while the wall portion is merely a splendid background which enhances the superb marble, metal and art glass effects of the fountain as a whole.

All drinks are served on the tables, so customers are not required to seat themselves at a slab of sticky marble. The dispenser finds everything needful before him as he faces the patron, and need not turn his back in serving. This makes for quickness and accuracy, and it may be safely said that no other fountain in Toledo is so convenient in every respect.

In material and fittings the fountain is a work of art. The marble is in two contrasting tones, cut and fitted with rare skill and taste. The handsome hanging lamps, with their stained glass and brilliant ornaments, are in the best style of new art, and the specially constructed woodwork about the back of the fountain is in the same excellent taste that marks the other interior furnishings.

Much may legitimately be said of this department, for it has steadily grown in importance during the last few years. It is no longer possible for a raw boy to don a white apron and serve acceptably as a dispenser of soda water. In this, as in every other calling, specialists are demanded, and for high grade city trade only an expert can be entrusted with this extremely particular work.

The fact should be remembered that in addition to its beauty, the Newcomer fountain is thoroughly sanitary. This is worth more than a passing word. Scrupulous neatness and cleanliness are imperatively demanded in work that has to do with creams and fruits. In this store only the best of fruit juices and crushed fruits are dispensed. The question of cost does not enter into the case. Only the first quality is good enough for the customers of Newcomer's.

There is a special bill of fare every day at this drug-store lunch-room printed by means of rubber stamps, which includes soups, oysters, sandwiches, salads, hot and cold pies, dumplings, short cake and other commestibles. The price, per portion, of these dishes, is 5 or 10 cents. Then there are regular combination lunches, ranging from hot coffee and wafers for 5 cents, up to a 25-cent meal. Of course there is the usual line of cold drinks and sundaes, at 5 and 10 cents a glass.

Mr. Heimerdinger, who has charge of this department of the business of M. F. Newcomer & Son, in further explanation of his manner of building up trade, gives voice to some good business-building ideas. He says: "We consider it a mistake to serve large portions, but pay particular attention to the foodstuff and syrups we use. No matter what we serve, we try to have the best. Our lunches are prepared by a woman who is an expert, and the kitchen where she works is absolutely clean and is open for inspection at any time.

"Salads are very popular, as well as seasonable short cakes, which we have the year around, and in this way we manage to have our winter trade as productive as the summer.

"We have a seating capacity of sixty-two, but could use more room every day. We demand neatness from every-one connected with the fountain. Clean linen is put out every morning, or twice daily if necessary. The girls who

serve the table wear black dresses and white aprons, and the courteous treatment they extend to the customers is a good advertisement for the store."

Beside the store mentioned, "Newcomer's" conducts two others in the down-town district of Toledo.

Baltimoreans Enjoying a Unique Fountain.

One of the latest competitors for soda water patronage in Baltimore is the firm of Lee Williamson & Co., north-east corner of Eutaw and Fayette streets, whose pharmacy has been opened about two weeks. The name of Mr. Williamson is widely known in the Monumental City, as he was one of the founders of the four stores still conducted under the name of Williamson & Watts, which have passed into the control of the Liggett syndicate. Mr. Williamson's training has been on the business side of pharmacy rather than on the professional, and when he established his new store, something exceptional was expected of him, in which expectation his numerous friends have not been disappointed.

The Williamson & Co. establishment boasts of one of the two fountains of the hollow square type to be found in Baltimore. This fountain stands almost in the middle of a store 32 by 35 feet, and the total front of its four sides is 34 feet. It is so placed and ornamented as to present a symmetrical appearance to anyone entering either one of the three street doors. At this fountain, in the words of the conjurer, concealment is impossible. There are not even the corner columns and the canopy to screen the dispenser. He is at all times in the eye of the patron, and his every manipulation may be an object of scrutiny. One of the first articles of Mr. Williamson's soda water principles is that the dispenser shall present an appearance which shall invite confidence. Everything that the dispenser needs to compound a drink is close at hand and so close to the customer that the latter cannot be misled as to the cleanliness of the apparatus and its appurtenances. Mr. Williamson planned all the details himself, and calculated to a nicety what the effect of this or that arrangement would be. He wants to take the patron of his fountain and lead him right up to it, virtually initiate him into its intricacies and dispel the atmosphere of mystery that surrounds some soda dispensers' quarters. His fountain is a sort of "heart-to-heart talk" in marble and metal, that has already shown itself to be powerfully effective, though there are other much-patronized soda places, established for years, within one block in either direction.

Mr. Williamson may claim one important advantage. His pharmacy is next door to a theatre, and to make it easy for the patrons of this play-house to get soda water, as well as to encourage the use of temperance drinks, he has had a door cut which makes it possible to enter the store direct from the lobby of the theatre.

Mr. Williamson demands first of all that everything about the fountain shall be impeccable and that the service as well as the materials shall be of the best. To insure quality he gives much personal attention to details, but he realizes that he cannot be everywhere, and that the demands made upon his time by the other departments of the business prevent constant personal supervision. Consequently, he employs assistants who can be relied upon to follow directions and whose habits of neatness afford a guaranty that there will be no letting down in the standards set. To say that he uses only the best materials is to make a superfluous observation; he could not, if he wanted to, sell inferior drinks in his location.

Mr. Williamson has succeeded in designing one of the prettiest stores and soda-water stands in Baltimore. In some respects it stands out above all others. Every person employed in it must be competent in his or her sphere. The dispenser must know his business thoroughly. Inefficiency or even mediocrity has no place in the Williamson & Co. store.

The New York "commuter" is sometimes in such a hurry to "catch the boat" that he swallows an ice cream soda in about 1 minute and 47.5 seconds elapsed time, and dashes out of the store without waiting for his change, shouting back, "I'll get it to-morrow."

"Quality not quantity," is a motto at the fountain of De Lamatu-Lawrence Drug Company, Atlanta. Another one is known as the "three P's"—"Purity, Politeness, Promptness."

Window Signs and Fountain Decorations.

W. S. Stinson, the manager of the George B. Evans drug store at 1221 Market street, Philadelphia, is positive that a considerable portion of the success that has attended the operation of his soda fountain during this, the first season for the store, has been due to a system of display advertising on his windows.

"WE QUENCH THEATRE THIRSTS" is the suggestive legend on one displayed a few days ago that seemed to impress hundreds who probably had not been in a theatre for a week, as well as those who had just left some playhouse and were on their way to catch a suburban train for home. But Mr. Stinson does not stop here, for in addition to this large sign which consists of a strip of white paper, eighteen inches high and twelve feet long, with large black letters, there are several smaller ones on each window. The latter give more specific statements as to the character of the refreshment and the names of the newest drinks.

"My idea," said Manager Stinson, "was to catch the people across the street or who rode or drove by the store either in street cars or automobiles. In most instances a purchase is made on a mere suggestion, and I wanted to make a suggestion that would reach as many persons in the neighborhood as possible. When they reach the window, the smaller signs act as additional arguments as to the advisability of dropping in and enjoying a glass of soda. It is on the same principle that a merchant hangs out his sign with a general statement of his business, only this is an inexpensive sign that may be changed frequently and is placed on the window so that it may be seen over the heads of those who are close enough to read the smaller announcements."

A feature of the decoration at this fountain is the display of laurel, conveying a cheering and timely effect during the winter season and giving a cooling and refreshing impression in the summer months. Large bunches of this evergreen are arranged in cut glass vases and set on top of the fountain. Displays of fruit are sometimes made, but the main feature is the arrangement of the laurel. It keeps for weeks if fresh water is put into the vases occasionally, and the rich green color blends harmoniously with almost any fitting of the fountain. It is always to be had at comparatively little cost.

Government Loses in the Coca-Cola Case.

Notwithstanding the many unsavory things about coca-cola and the way in which it is manufactured, testified to by government witnesses, in a case reported in the CIRCULAR for last month, page 219, Judge Sanborn, who was conducting the trial, decided that the government had failed to establish an actual violation of the letter of the food and drugs act by the coca-cola manufacturers, and dismissed the case.

In the trial it was brought out that coca-cola consists principally of caffeine made from tea, in flavored syrup. The proportion of caffeine was stated to be a fraction over one grain in each fluid ounce (about 0.22 grammes of the alkaloid in 100 grammes of the syrup).

One of the most interesting features of the trial was the large array of expert witnesses on each side. The case fell through, seemingly, because of a confusion in the minds of some of the prosecuting witnesses between what the law actually prohibited and what they thought it ought to prohibit.

Chocolate Syrup.

By making his chocolate syrup according to the formula herewith presented, John F. Huchting, Branchville, S. C., secures a smooth product which he finds satisfactory:

Powdered cocoa.....	4 ounces.
Sugar	8 ounces.
Milk	8 ounces.
Glycerin	2 ounces.
Tincture of vanilla.....	4 drams.
Water enough to make.....	2 pints.

Mix the chocolate and sugar and reduce them to a fine powder. Add water and boil until the syrup thickens. Remove from the heat; when it is cool add the glycerin, milk and tincture of vanilla, and beat well with an egg beater.

In boiling chocolate great care should be used to see that it does not burn. A steam jacketed kettle or a sand-bath is a very useful appliance for use in the syrup-manufacturing department.

Some Old Time Advertisements.

In the fourth issue of the CIRCULAR (that is, in the issue for April, 1857), on page 40, appear the first two soda-water advertisements ever printed in this medium. One of them occupies a space of four lines, single column, and reads.

SODA SYRUPS—Made very heavy—from fruit—expressly for soda. For sale in packages of not less than five gallons, by F. B. Nichols, 71 Pine st.

There was less than 2½ pages of advertising in that issue, all told, the largest single advertisement being 6 inches, single column.

In that issue H. Planten announced that he had associated with himself his son, John R. Planten, and that the manufacture of gelatin capsules would be continued as before at 224 William street—an address, by the way, from which the firm has but lately moved.

Hegeman, Clark & Co. had a cod liver oil advertisement. They gave four addresses on Broadway, 165, 273, 511, and 756.

Eimer & Amend's card occupied five lines. Their address was the same then as now.

B. B. & J. Hagerty, 8 Platt street, and J. Neidlinger, 191 Pearl street, announced that they had on hand or would make to order glassware of every description.

Most of the other advertisements in that issue are of small interest or significance to present-day readers, but here is another one of Mr. Nichols' which is entitled to reproduction in full:

NICHOLS' S IMPROVED PATENT COMBINATION SODA WATER APPARATUS,

Unrivalled for cheapness, safety, portability, simplicity, ease of operation, strength and purity of water produced,

ALSO
Fancy Counter Stands. Some new and beautiful designs.

F. B. NICHOLS agent,

71 Pine street.

In the CIRCULAR for April of this year, there are more pages of advertisements of soda fountains and accessories than there were pages in the entire number for April, 1857.

A Wide-Awake Missouri Dispenser.

"First, we believe in quality. We serve only the best of everything. When we get a good line of syrups and crushed fruits, we stay with it.

"Second, we maintain absolutely sanitary conditions about our fountain.

"Third, we require all our attendants to be courteous at all times. We encourage them to learn to know the customers and what they like, as there is delicate and subtle flattery in recognizing people and remembering their tastes."

In these three declarations does W. L. Kindel, chief dispenser at the fountain of the Wherrett Drug and Manufacturing Company, Kansas City, Mo., lay down his platform. And it is a good one, too, and comes pretty close to filling the bill. It is not only good on paper, but has proven good in practice, for the Wherrett Company does an enviable soda business.

To the CIRCULAR Mr. Kindel says: "Our trade is regular; we see comparatively few new faces from day to day; and our sales vary but little.

"We maintain a uniform standard for our syrups, fruits, ice creams and ices, and consider this very important.

"Our carbonated water is kept very cold, well-charged and sparkling; the colder the water the more gas it will absorb and the more snappy it will be.

"We serve soda in polished glasses only.

"We never mix new syrup with that already in the fountain. As soon as a tank is empty, it is washed in hot water. After that, fresh syrup may safely be put into it.

"We let no part of the fountain go untouched for a single day—every morning a general cleaning takes place.

"We employ competent dispensers who serve customers instantly; who know how to serve properly; who know

where everything is kept. Delay or poor service makes a bad impression. We try to avoid changing help; our fountain has been under its present management for years.

"We measure everything carefully. Our experience is that guess-work and uniformity of product are incompatible.

"We get good prices for all our drinks; for ice-cream soda, 10 cents.

"We make our own simple syrup once a week, using a 30-gallon percolator. Into this we put 100 pounds of granulated cane sugar, which we cover with 6½ gallons of filtered water. In the morning the water has run through. The percolator is kept sweet and clean with hot water, as even simple syrup will spoil if made in sour vessels.

"We display no signs, but talk to customers about our goods and service, and let them do our advertising by talking to their friends.

"We hold our dispensers responsible for the proper use of the materials placed at their disposal. They are supposed to follow directions and see that the public is served in as clean, neat and pleasant a manner as possible. If they do their best, success is assured. The public appreciates quality and service, and manifests their appreciation by creating increased business, resulting in increased profit for the proprietor and increased salary for the dispensers. All our dispensers are men."

Every day sees a special drink or sundae at the Wherrett fountain. A few of the formulas in use follow:

Zenap.

Draw into a straight mineral-water glass, 1 ounce of orangeade syrup; add ½ a fresh lime, with peel; shave ice in the glass; and fill with ginger ale. Top with sliced orange and a cherry. Serve with straws, and collect 15 cents.

Golden Sunset.

Into a lemonade glass draw 2 ounces of orangeade syrup; shave ice into the glass; fill three-fourths full with carbonated water; and add two orange slices. Top with a disher of ice cream and a cherry. Serve with a spoon and straws. Price, a dime-and-a-half.

Nana-Berry Sundae.

On an oblong dish place a split banana; add a disher of chocolate ice cream and a disher of vanilla ice cream, with a whole cherry on each; and a ladle of fresh strawberries. Lay on each side a dainty wafer, and sprinkle over the whole some ground pistachio nuts. When five of them are ordered and a dollar bill laid down, there is no change coming.

The menu in use at this fountain shows 21 ice cream sodas, at a uniform price of 10 cents; 24 sundaes at 10 or 15 cents; 12 lemonades ranging from 10 to 20 cents; 16 egg drinks, mostly 15 cents, but egg phosphate is 10 cents, and egg malted milk with ice cream, 20 cents; 10 mixed drinks at 10 or 15 cents; 21 phosphates and thirst quenchers, at 5 or 10 cents; 14 mineral waters at 5 to 25 cents; and a blank space for 3 "specials to-day."

Most people are embarrassed by close watching when they are eating or drinking.

Agree with your customer before he leaves the store, as you may never have another chance.

Soda water well served to a chance dropper in May, and often does, mean the gain of a steady customer for soda and drugs.

Tired- and discouraged-looking spoons, glass holders, etc., are as little attractive to the public as our sleepy-eyed, unshaven, unmanicured and otherwise untidy dispensers.

Economizing on the price of eggs and then breaking an "over-ripe" one in the presence of a customer, is a good example of saving at the spigot and losing at the bung.

Crackers that have the appearance of having been handled by a previous customer are not relished by the dainty. Broken crackers or crumbs in the plate give that appearance.

Eating ice cream leaves some people thirsty for plain water. This is a hint. Everything else being equal, the soda man who acts on it—or who does not need it—will succeed where one of another kind will fail.

Cranks may be unreasonable, but the customer who prefers to patronize a clean fountain is not necessarily a crank and is certainly not unreasonable. The dispenser who thinks otherwise is in the wrong business.

Ice Cream as a Side Line.

H. A. Nolte, proprietor of drug stores at Atlantic City and Philadelphia, who with his brother, H. R. Nolte, recently opened a store at Wayne and Logan streets, Germantown, one of the fashionable suburbs of the latter city, has unexpectedly developed a well-paying ice cream business in connection with his soda fountain. When the store opened a short time ago, the sale of ice cream became a feature at the fountain, and many requests were made for the frozen confection by the pint and quart. It became necessary for the proprietors steadily to increase their or-

Snappy Soda

The thirstiness of the first warm weather doubtless reminds you of many pleasant moments spent at our fountain last summer.

We are ready for the business of this season with the tastiest and classiest drinks possible to produce. Rich, real-fruit flavors, thoroughly carbonated water, perfectly sterilized. Perfect hygienic conditions, together with expert dispensers, make our soda the sort that will please any palate and relieve any thirst.

All the old-time fruit drinks, as well as all the newest fancy drinks, plain sodas, phosphates, ice cream combinations and fancy lemonades.

(Name and address)

ders for ice cream, and as they had plenty of room in the cabinets of their iceless fountain, they announced their readiness to sell and deliver ice cream.

There is little competition in the neighborhood and further plans are being considered for the selling of the cooling delicacy in any quantities to families.

Americans Like Chocolate.

Imports of tea and cocoa for the fiscal year ending June 30th next, according to the bureau of statistics of the department of commerce and labor, bid fair to be the largest in the history of America's import trade.

Coffee, which is showing the highest prices since 1897, has fallen in the imports. Since last July 644,000,000 pounds have been imported, or 100,000,000 pounds less than during the corresponding period last year. Meanwhile tea and cocoa are surpassing all records.

At the present rate of importation it is probable that tea imports into the United States will aggregate 115,000,000 pounds, and that cocoa will exceed 140,000,000 pounds.

Some people do not like to place to their lips the rim of a glass on which they have seen the grimy hands—or any other kind of hands—of another person. It is well for soda dispensers to act as if every customer were as finical as the most finikin.

The Soda Clerk.*

I wisht I had to drive a truck,
Or guide a buzzin' taxicab;
On this here job I am not stuck,
An' that's no plain carbonic gab.
Say! see the signs behind me back?
Well, all them drinks I've got to mix;
Of half of 'em I can't keep track—
This soda game is full of tricks.

When I went in the soda biz
A kid could hold his end up then;
You blew the glass chock full of fizz,
An' let it go at that. But when
They run the ice cream in on us,
I see right there the time had come
When soda jerkin' was a muss
An' not a clean an' genteel game.

From ice cream they jumps into fruits,
An' then some guy puts sundaes out;
If they keep on, you bet your boots,
We'll soon be servin' frozen kraut;
With eggs an' hay an' canteloupes,
Bananas, berries, grapes an' limes.
They've surely got us rollin' hoops
About four jumps behind the times.

Envoi.

A chemist you have got to be
To get a soda clerk's degree;
What used to be plain soda brew
Is now a sweetened Irish stew.

Homogenized Cream.

Good Dr. Wiley, of Washington, always on the lookout for anything that may harm the tum-tums of the people, has discovered a so-called homogenized cream, made by mixing butter and skimmed milk by means of a homogenizer, a mechanical contrivance for breaking up the fat and so mixing it with the milk that it will not separate upon standing.

"Ice-cream" made from such milk, says Dr. Wiley, is not entitled to the name.

In passing it may be said that it seems strange that one should find it economical to skim the cream from milk, churn and make butter of it, and then go to the trouble to put that butter back into the skim milk, and use the product in place of the whole milk he had in the first place, but there is on the market an apparatus for undoing the work of the churn.

A Bunch of Garnered Formulas.

Seltzer Lemonade.

Juice of 1 lemon, 1 tablespoonful of powdered sugar, $\frac{1}{4}$ glass of cracked ice. Stir with a spoon and fill with seltzer water. Stir again, strain and serve with straws.

King's Favorite.

Pineapple syrup, $\frac{1}{2}$ ounce; raspberry syrup, $\frac{1}{2}$ ounce; vanilla syrup, $\frac{1}{2}$ ounce; egg, 1; milk, 4 ounces; a little ice. Shake, fill with carbonated water and strain.

Royal Muscadine.

Into a 12-ounce glass draw $1\frac{1}{2}$ ounces of raspberry syrup; add 1 ounce of grape juice and 3 dashes of raspberry vinegar; fill $\frac{1}{2}$ full of ice and balance with carbonated water; mix and decorate.

Springtime Dream.

Into a 12-ounce glass draw 1 ounce of raspberry syrup and $\frac{1}{2}$ ounce of orange syrup; add the juice of $\frac{1}{2}$ a lemon and $\frac{1}{2}$ ounce of grape juice; fill $\frac{1}{2}$ full of ice and balance with carbonated water; mix and decorate.

Waltz Dream.

Into a 12-ounce glass draw 1 ounce of raspberry syrup, $\frac{1}{2}$ ounce of orange syrup, 2 ounces of sweet cream and a portion of ice cream, and shake thoroughly. Fill with carbonated water and strain into another glass and top with whipped cream.

Chocolate Peach Sundae.

On a fancy plate place a disher of chocolate ice cream. On each of two sides of the cream put a thin wafer and on

*"Selected" by the New Idea.

the opposite sides put half of a peach previously sliced. Over the slices of peach put a spoonful of whipped cream and pour over all a generous quantity of chocolate syrup.

Multi's Delight.

Prepare cream for freezing, 1 gallon. Add $\frac{3}{4}$ ounce powdered chocolate, put in the freezer and turn until the mixture comes near the freezing point. Remove the lid and add 1 pound of chopped nuts. Finish freezing, take out the dasher and work in with a butter paddle six sliced bananas (being careful not to mash). This makes a very rich sundae and should bring 15 cents.

Honey Dew Syrup.

Maple flavor, 1 ounce; honey, 1 gallon; raspberry juice, 1 quart.

Pistachio-Banana Sundae.

On a split banana place two small portions of pistachio ice cream. Then arrange in an oval around the plate the segments of a small peeled navel orange. Add a few pistachio nuts.

Madame Sherry.

Place upon a split banana on an oblong plate two small portions of vanilla ice cream. Put candied cherries around the edge of the banana about an inch apart. Between the mounds place a spoonful of chopped nut meats.

Milk Chocolate Shake.

Chocolate syrup, $1\frac{1}{2}$ ounces; rich milk, 5 ounces. Shake well, and shave some ice on top. Fill the glass with shaved ice. Stir with the fine stream.

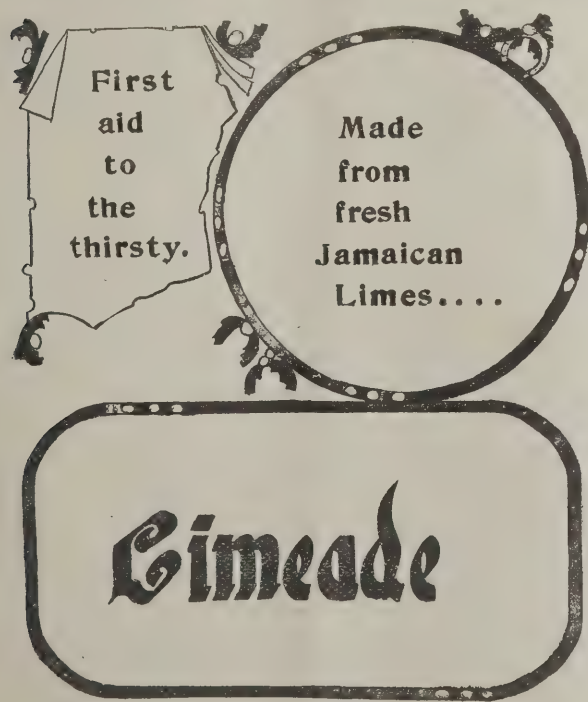
Vanilla Milk Shake.

Fill a glass half full of rich milk. To this add 2 or 3 spoonfuls of sugar. Shake in a few drops of extract of vanilla. Fill the glass nearly full of finely broken ice. Shake vigorously, and fill the glass with the fine stream. Serve with a spoon and straws.

Nut Salad Sundae.

Chop 1 pound of mixed nuts and add 10 ounces of crushed strawberry and 10 ounces of crushed pineapple. Pour over plain ice cream.

It is sloppy to overrun a glass when drawing soda, and sloppiness does not attract trade; indeed it has been known to drive away some of the best customers.



Sample of soda card marking done by Harry Lee, proprietor of a rapidly growing soda business in the Baltzly Drug Store, Broadway and Ninety-sixth street, New York. The original card is about 15 by 20 inches; the large letters are red, the small ones black, and the borders are combinations of green, black and red.

Meetings of American Pharmaceutical Association Branches.

Chicago.—In spite of rainy weather, the Chicago branch of the American Pharmaceutical Association held a very well-attended and enjoyable meeting April 18th. The evening was devoted to a discussion of the subject of photography.

Prof. A. H. Clark was the speaker of the evening, his subject being "The Chemistry of Photography." A brief review of the history and development of photographic methods was given particularly with regard to the modern dry plate. The effect of light upon the salts of silver was discussed briefly, and the theory of the developing and fixing of a dry plate was explained. Experiments were used to illustrate the character of the chemical changes that take place in the various printing processes, and the difference in the various kinds of papers was explained.

Prof. N. G. Bartlett followed with a very interesting talk along the same lines. In reply to questions from the floor he outlined the method of making films for motion-pictures.

O. U. Sisson read a timely paper setting forth the commercial aspects of photography and the opportunities for the pharmacist who deals in photographic supplies and appliances as a side line.

A lively discussion followed and at its conclusion the branch formally thanked the speakers.

The next meeting will be held May 16th.

New York.—Once again the New York branch of the American Pharmaceutical Association found one evening far too short to admit all the papers contributed, and several of those to be offered at the meeting held April 10th were carried over until the May meeting. In the matter of attendance there was also a crowd.

As a part of the routine of the meeting Treasurer Joseph Weinstein reported a balance on hand of \$55.39. W. F. MacDowell, chairman of the committee on membership, and J. L. Lascoff, associate, told of the missionary work they were doing and of having secured several new members. Chairman T. D. McElhenie, of the committee on professional relations reported that he had invited a number of physicians to attend the meetings.

For the committee on the progress of pharmacy Otto Raubenheimer read in abstract the following articles: "The Non-Toxicity of Pure Methyl Alcohol," by Arends (*Pharm. Zeit.* 55, 1910); "The Yellow Color of Picric Acid," by Stepannow (*Lieb. Ann. de Chem.*); "Detection of Artificial Colors in Foods," by Spaeth (*Pharm. Zentralh.*); "Preparation of Salvarsan" (*Jahres. prakt. Pharm.*); "Results with Salvarsan," by Ehrlich (*Wien. Med. Woch.*); "Nitrite Poisoning from Bismuth Subnitrate" (*Berl. klin. Woch.*); "History of Glauber, Epsom, and Rochelle Salts" (*Pharm. Journ.*); and "Analysis of Lavona de Composé" (*Pharm. Zeit.*) He also called attention to several new books.

With Vice-President Diekman in the chair Mr. Hitchcock reported for the committee on joint meetings with physicians. He said that the annual meeting with the Medical Society of the County of New York would probably be held within a month.

The first speaker of the evening was Jacob Diner, whose subject was "Bacteriological Aids to Diagnosis." He pointed out how the physician was coming to rely more and more on the bacteriologist because his assistance makes diagnosis more rapid and certain. The role of bacteriologist, he said, was particularly fitting to the pharmacist and could be taken up with the expenditure of a little money, some more time and a great deal of study and practice. Aside from the apparatus that should be in every pharmacy little equipment was necessary: Petri dishes, culture flasks, and platinum needles and loops constitute these.

Mr. Diner then told how the bacteria could be propagated and identified, impressing upon his hearers the need for cleanliness in all operations.

Messrs. Weinstein, Diekman, Niece, Raubenheimer, and Eccles spoke on the possibilities of bacteriological work. Dr. Eccles said that the pharmacist had not been keen to take up this work, but he thought it would be necessary for the pharmacist to be a bacteriologist. Dr. Eccles spoke very interestingly of the tendency away from drug therapy, telling of the progress toward safe vaccines and anti-toxins and studies in anaphylaxis.

The second paper was one on "Making Blood Counts and Bacterial Vaccines," by Paul Caldwell. This paper was read by Secretary Hugh Craig. Mr. Caldwell showed

that the counting of blood cells was a simple task and that the conditions governing the preparation of auto-genous vaccines were not restrictive to the pharmacist. He declared that it was not necessary to isolate specific bacteria in making vaccines as only one species would have any effect. Mr. Caldwell told of one case of **appendicitis** in which vaccine prepared from another patient had been successfully employed.

Messrs. Niece, Weinstein, Diner, and Gallagher added to the discussion of this subject.

Joseph Weinstein, whose subject was "Uranalysis," declared that the pharmacists must take up as new "side lines," work that is germane to pharmacy and not possible to department stores. The analyzing of urine was prominent among lines of this sort, he said, and there was no reason for the pharmacist to hesitate about undertaking it. To support his statement that the pharmacist with very little expense of time or money could profitably engage in uranalysis, the speaker described briefly the recent methods of detecting albumin; the use of blood and pus tests, interpretation of diazo reactions; tests for indican, bile-pigments, and glucose. He laid particular stress on the necessity of preventing deterioration of the sample to be examined, and of taking into consideration all influencing conditions.

Messrs. Lascoff, Eccles, Niece, Raubenheimer, Diner, Gallagher, and Goeckel discussed this subject. The prevailing opinion was to the effect that uranalysis was a profitable pursuit for the careful, trained pharmacist. Some difference of opinion arose as to whether a pharmacist should analyze a patient's urine without the knowledge of the attending physician; the disturbing element, the unworthy individual, was recognized as the determining factor in this contingency.

Because of the lateness of the hour J. L. Mayer, who was to speak on "Water Analysis," gave but a synoptic description of a scheme of water examination, bacteriological and chemical. He stated that the pharmacist was logically the person to do this work and was also by training fitted for it. Dr. Mayer will treat his subject more at length at the May meeting.

F. E. Niece presented an outline of the work connected with the examination of milk. At the May meeting he will speak of the subject of "Milk Analysis for the Pharmacist."

As it was by that time midnight a talk on "The Detection of Food Adulteration," by Hugh Craig, was deferred entirely until the next meeting, which will be held May 8th. And, after expressing its thanks to the speakers, the branch adjourned.

Northern Ohio.—Practically the entire meeting of the Northern Ohio branch of the American Pharmaceutical Association, held March 24th, at Cleveland, was devoted to the reading of a paper on "Modern Pharmaceutical Manufacturing," by J. F. Woolsey, and the subsequent discussion.

Mr. Woolsey prefaced his paper with the statement that despite the pessimists, the scientific aspect of pharmacy was still of paramount importance, and that none recognized this more clearly than the successful manufacturing pharmacist. He declared that there was no line of trade more dependent upon the chemist for solution of problems than manufacturing pharmacy, and he stated that the laboratory chemist and the prescriptionist are the two exemplifiers of scientific pharmaceutical endeavor.

In Mr. Woolsey's opinion the federal food and drugs act has been a valuable stimulus to pharmaceutical advancement, and at the present time manufacturers are desirous not only of reaching pharmacopoeial standards but of surpassing them. These advances in standards, he said, benefited the manufacturer through increased sales for his product because modern retail pharmacists demand the best that the market affords. He believed that the average quality of pharmaceuticals was now much higher than it was ten years ago.

The speaker then took up the description of various manufacturing processes. He stated that because of improved apparatus the quality of extracts and fluidextracts had been bettered. The manufacture of elixirs, he said, had not advanced much, but in the making of tablets and particularly of pills there had been marked strides toward perfection. Mr. Woolsey told of the aseptic conditions surrounding the manufacture of hypodermic tablets; and of the methods of making elastic capsules. Up-to-date methods of comminuting drugs were described by the speaker. In

conclusion he outlined the usual system of marketing employed by manufacturers.

In the subsequent discussion the manufacture of empty capsules and "bipalatinoids" was discussed.

At the suggestion of Secretary H. V. Arny the branch started a subscription to the Hallberg memorial fund.

Washington.—The meeting of the City of Washington Branch of the American Pharmaceutical Association held on the evening of April 8th, was devoted to a general discussion on matters of interest to pharmacists. The following papers were read: "The Use and Advantage of a Restricted Materia Medica," by Dr. M. G. Motter; and "Magma of Magnesia: a New Formula and a Modified Process," by S. L. Hilton. There was also an exhibition of specimens of some of the preparations of the new German Pharmacopoeia and the National Formulary, by Otto Raubenheimer, of Brooklyn, N. Y., and J. K. Thum, of Philadelphia, respectively.

Dr. Motter called attention to the efforts that have been and are being made in this country to bring about reforms in therapeutic practices, and pointed out that in this connection the need for limiting instruction in materia medica subjects to a restricted list of substances is being recognized by teachers in medical schools. He asserted that it has been impractical if not impossible to give students of medicine that thorough grounding in the essential features of the U. S. P. which the importance of the subject would appear to demand largely because teachers are obliged to devote too much time to the discussion of unimportant drugs in order to fit their students for the State board examinations. Dr. Motter then reviewed, at some length, the efforts that have been made to bring about reforms in this connection, and exhibited a restricted list adopted by the teachers and examiners of the University of London as a basis for examining candidates for degrees as well as licensure.

Dr. Motter expressed the belief that unless the scope of our recognized national standards could be restricted to a reasonable number of articles, the books themselves must be ignored entirely by medical schools. He characterized the present United States Pharmacopoeia as an illustration of "would-be science," the National Formulary as "a hybrid between science and commercialism," and New and Non-Official Remedies as "a sop to the commercial Cerberus."

As an illustration of the tendency manifest, he read the preamble and resolution adopted at the annual meeting of the Association of American Medical Colleges, held at Chicago in February, in which teachers of materia medica and State medical examining boards were urged to adopt the limited materia medica lists published by the joint committee of the council on medical education of the American Medical Association, and of the National Confederation of State Medical Examining and Licensing Boards, and the Chicago Medical Society.

The subject was further discussed by Messrs. Kalusowski, Flemer, Hilton, Hunt, and Wilbert, and the general trend of much of the discussion suggested the desirability of having the U. S. P. restricted to important medicaments so that it might serve as the basis for materia medica instruction in medical schools. Dr. Hunt and Mr. Wilbert were of the opinion that the physicians' part in the revision of the Pharmacopoeia is but a minor one, and that much of what the better informed medical men might have to say is discounted by the "fictitious value that is accorded to the reputed needs of the less conscientious, or less competent practitioner who is willing to continue the use of substances that appear to have no recognized medicinal value."

S. L. Hilton reported a series of experiments to determine the most desirable process for making magma of magnesia N. F. He exhibited a number of samples and presented a formula in which the amount of magnesium sulphate is increased to 330 grammes, and the amount of sodium hydroxide to 119 grammes. The resulting preparation, while much more limpid than the magma usually met with, contains more magnesium hydroxide and is therefore more efficient.

Secretary Wilbert exhibited a number of preparations, made by Otto Raubenheimer, illustrating some of the additions and changes embodied in the D. A. V. He also showed a number of samples of solution of peptonate of iron with manganese made by J. K. Thum, according to a formula proposed for the N. F., showing the possible variations resulting from slight modifications of the method of

procedure. Mr. Thum ventured the opinion that the formula and method proposed by Dunning, in 1905, give much more satisfactory results.

Mr. Hilton, as secretary of the District of Columbia Board of Pharmacy, called attention to the objections that have been made to a recent ruling of the board that the dental supply depots could not legally sell narcotic drugs. The subject was discussed considerably, and the branch endorsed the efforts of the board.

Papers Wanted for the Boston Meeting of the A. Ph. A.

In an endeavor to surpass the showing made at the 1910 meeting of the American Pharmaceutical Association by the section on practical pharmacy and dispensing Louis Saalbach, chairman of the section, asks members to contribute for the 1911 session papers on operative pharmacy, notes on official preparations and ideas pertaining to the every-day practice of pharmacy generally. Papers should be sent to the chairman whose address is 1436 Fifth avenue, Pittsburg, Pa.

Prof. Charles W. Johnson, University of Washington, Seattle, Wash., desires to receive contributions of papers to be read at the Boston meeting in August, of the association, before the section on pharmaceutical education and legislation, of which he is chairman. He would be glad to correspond with any member of the association who is in a position to send a paper for presentation before this section.

Solution of Hydrogen Dioxide Not a Drug in This State.

By unanimous decision handed down April 7th, the appellate division of the supreme court of this State upheld the fifth district municipal court of this city in the case of the New York Board of Pharmacy against F. W. Woolworth & Co., involving the status under the pharmacy law of solution of hydrogen dioxide when sold in original ready-to-market containers. The lower court had ruled that the sale of the solution did not affect the public welfare in such a way as to require the supervision of a licensed pharmacist. (See the CIRCULAR for August, 1910, page 442.)

The appellate division ordered the board to pay the costs amounting to \$79.80. It is stated that the board will carry the case to the court of appeals.

Druggist Not Liable for Error of Employee.

A verdict of acquittal was returned by a jury in the court of general session in this city in the case of a local druggist charged with having made an error in dispensing a prescription, which resulted in the death of the patient. The allegation was that corrosive mercuric chloride was dispensed in mistake for mercury with chalk.

The druggist's defense was that the prescription had been compounded by a clerk who had since left his employ. Although the druggist himself handed out the medicine to a nurse, the court so interpreted the meaning of the word "dispense" in section 1742 of the penal code, as to lead the jury to exempt him from criminal responsibility.

New York "Medical Institutes" Raided.

Postoffice inspectors and the local police raided three mail-order medical-advice concerns in this city, April 20th. The concerns visited were the Hartmann Medicine Company, the Vienna Medical Institute, and the Universal Medical Institute. Five prisoners and several dozen bags of mail matter were seized.

For the most part the "institutes" operated among the foreign-speaking population. All of them played the old game of selling weak preparations of ordinary drugs to diagnosis-blank "patients" for large fees.

William H. Rogers, of Middletown, N. Y., a former president of the New York State Pharmaceutical Association, recounted in his well-known happy style some of his experiences among the Mexican insurgents, in an article recently appearing in the Middletown *Daily Argus*.

The Bettles Pharmacy, C. C. Bettles, proprietor, of Jacksonville, Fla., has been incorporated with a capital stock of \$125,000.

Westchester County Association.

In calling to order the Westchester County (N. Y.) Pharmaceutical Association at a meeting held April 12th, at Ossining, President John Roemer, of White Plains, recounted the work accomplished by the association in legislative and commercial matters, and called upon the members to support the propaganda for the knowable in medicine. He believed the spirit of commercialism in pharmacy to be waning, and that pharmacists would begin to rely upon their technical training for their success.

After the minutes of the previous meeting had been read and approved, and a facetious disposition had been made of a proposition that the officers have their photographs taken for publication, the chairman of the executive committee, L. J. Schlesinger, of Yonkers, presented applications from two prospective members. Later these two druggists were duly elected to membership.

Relative to the matter of commissions on telephone messages F. A. Russell, of Tarrytown, told of having communicated with other organizations and also officials of the telephone company, and expressed the belief that the endeavors of the association would be resultful.

An appropriation of \$10 was made for the use of the entertainment committee of the New York State Pharmaceutical Association. The sum of \$13 was collected for the Hallberg memorial fund.

As delegates to the meeting of the State association Messrs. Russell, Schlesinger, McCullough, Roemer, and Alvord were chosen.

Propaganda matters coming up for consideration, Dr. William Muir, of Brooklyn, related at the invitation of the chairman, the results obtained in his city by the distribution among the physicians of post cards calling attention to the composition, dose, and uses of official preparations. The Westchester association had been using propaganda literature furnished by the National Association of Retail Druggists, but the plan referred to by Dr. Muir so appealed to his hearers that the matter of using the N. A. R. D. literature was reconsidered, and the propaganda committee was advised to formulate a plan for making use of especially prepared post cards to be sent out by the members.

The chairman named Messrs. Farrington, Smith, and Alvord as the propaganda committee for the ensuing year.

Mr. Roemer, to illustrate the feeling of the makers of nostrums toward the retail druggists, read several letters he had received from several well-known concerns. He had written to fifteen to ascertain whether they made any attempt to protect the retail prices of their wares, and whether they considered the druggist to be the proper retailer of their products. But six had replied. Their answers, Mr. Roemer said, indicated that they had no care as to what happened to the druggist.

The first formal speaker of the day was Dr. Henry T. Kelly, of White Plains, who spoke on the subject "Is Pharmacy a Lost Art"? The Doctor was of the opinion that the external appearance of drug stores pointed to the affirmative answer to this question. But he had a strong hope that, despite the lack of business training among physicians and the tendency toward commercialism among pharmacists, the haven of the few thinkers in both professions would bring the two bodies into co-operation. He set forth plainly and emphatically that he considered the pharmacist dilatory and false to his trust who permitted a desire for bigger profits to influence him to select an inferior grade of drugs.

Purity of drugs the speaker averred to be one of the essentials in medicine, and he said that the pharmacist to fulfill his part in the group of physician, pharmacist and patient must of his own knowledge be sure of the quality of the drugs he dispenses. Cheapness he believed to be at the bottom of most of the ills of the body pharmaceutical and he called upon pharmacists to inaugurate a "revision upward" of drug store standards and of the druggist's conception of his duty.

Mr. Roemer believed that in a trend toward better, higher pharmacy lay the solution of the chain-store problem.

Dr. Muir said that carelessness and indifference of both pharmacist and physician were responsible for many of the evils laid at pharmacy's door. Rigid inspection was necessary, he said, and the punishment of willful violators should be severe. It was his belief that the number of voluntary infractions of the law was small and that druggists and doctors were getting together in a way that would eliminate the underserving.

Messrs. Russell, Alvord, and Schlesinger also discussed Dr. Kelly's paper, agreeing with him as to the desirability of better things, but pointing out the difficulties that handicapped the druggists in ascertaining the quality of some of their drugs.

Hugh Craig, of THE DRUGGISTS CIRCULAR, was the other speaker of the day, his subject being "The Possibilities of Professional Side Lines." To point out the benefits that lie in bacteriological and analytical work was the speaker's endeavor. He told the druggists that they could gain the confidence of the physicians, uplift themselves in the estimation of their fellow-townsmen, and make a good profit; by preparing themselves to aid the physician in laboratory diagnosis and to undertake the chemical work that is at hand in every community.

Mr. Craig urged his hearers to consider the advisability of spending the time required to sell soda water and knick-knacks in equipping themselves with a better working knowledge of bacteriological work, uranalysis, the analysis of water, milk, and foodstuffs generally, and of the role of chemical assistant to the modern farmers of their vicinity. The speaker also described briefly some of the methods of analysis to which he referred. And in conclusion he advised the druggists to cultivate that which alone could be relied upon to assist them toward success: their individual ability.

Midway in the meeting adjournment was taken for the purpose of discussing a goodly array of comestibles.

The association will next meet at Rye Beach in July, at which time each member is expected to bring with him his physician friends.

New York German Apothecaries.

Because of the interesting nature of the program an unusually large attendance marked the meeting of the New York German Apothecaries' Society held April 6th. As an indication that the society's years have not interfered with its growth there were applications of seven apothecaries desiring to become members handed in.

After the various communications on the secretary's desk had been disposed of the reports of the committee were taken up, that of the entertainment committee being the first. O. P. Gilbert, the chairman of this committee, said that the plans for the jubilee celebration in October were nearing completion, and that the aspect daily grew more gratifying. He then reported that arrangements had been completed for a visit by the society to the manufacturing laboratories of Sharp & Dohme, at Baltimore. This call will take place May 17th and 18th, the visitors leaving on a Pennsylvania special train at 1:30 o'clock, on the afternoon of the 17th. While at Baltimore they will be entertained with a theater party, an automobile tour of the city, and a dinner at the Country Club. Full details may be got from Mr. Gilbert, whose address is 453 Ralph avenue, Brooklyn.

S. V. B. Swan, chairman of the legislative committee, presented a detailed report on the various matters of a pharmacal-legal nature of moment at the time. He mentioned that the New York State Board of Health had appointed a former druggist as an inspector who was visiting manufacturers and wholesalers, and obtaining the addresses of retailers who had bought narcotics, and also the amounts purchased. He said that it had been established that one wholesaler in a single month had sold 6000 ounces of cocaine.

An emphatic denial of a rumor that pharmacal supervision was not as it should be was made by Otto Raubenheimer and Dr. G. C. Diekman, the latter declaring that the inspectors of the board of pharmacy were very diligent in their duty. A motion to extend a vote of confidence to the board was unanimously carried. Dr. Diekman as president of the board thanked the society for this proof of confidence, as well as for the support which the board had always received from the society.

M. Brandt, justifying himself against an attack which had been made against him during the "World's" campaign (see last month's CIRCULAR, page 226), showed that his interpretation of the prescription in question was a logical one.

An appropriation of \$50 was made to the Hallberg memorial fund.

The lecturer of the evening was Dr. E. W. Dittrich, who gave his hearers a great deal of interesting information upon the timely subject of "Salvarsan." Phases of the new theory of medical treatment of which salvarsan is

the best known medicament were presented by Dr. Felix von Oefele and Dr. Friedrich Klein.

After the speakers had been formally thanked, the meeting was adjourned.

Kings County Society.

With a gratifyingly large number of members present the Kings County (N. Y.) Pharmaceutical Society held a regular meeting at Brooklyn, April 11th. Two persons were elected to membership, and applications were received from seven desiring to join.

Treasurer Adrian Paradis reported a balance of \$401.63 in the treasury of the society, and college funds on hand to the amount of \$13,145.02.

Some informal reference to legislative and trade matters was made, Dr. William Muir distributing a number of large cards on which were printed the laws and ordinances applying to the every-day business of the druggist. These cards had been prepared for free distribution to all pharmacists of the county. Otto Raubenheimer told of a new ruling by the municipal bureau of combustibles requiring wholesale dealers to report all sales of five gallons or more of the light petroleum distillates.

For the committee on trade matters Charles Heimerzheim reported that 200 copies of the Physician's Manual of the U. S. P. and N. F. had been supplied to students at the Long Island Medical College; and that the fourth of the series of propaganda post cards were ready to be sent by members to their physicians. Messrs. Heimerzheim, Muir and Rehffuss told of the good results attending the use of these cards.

The sum of \$50 was donated to the local committee of the New York State Pharmaceutical Association to be added to the entertainment fund. It was decided that the society would pay the carfare of its delegates to the meetings of the New York and New Jersey associations.

Mr. Raubenheimer, as chairman of the committee on pharmacy, introduced the speaker of the occasion, Prof. Joseph Kahn, whose subject was "The Chemistry of Some Important Synthetics."

Prof. Kahn's address dealt with the relation of the chemical structure of anesthetics, hypnotics and analgesics to their physiological effects. By graphic formulas and simple direct explanation he pointed out to his hearers how out of methane were evolved the simple chlorine compounds employed as anesthetics, how the more complex ethers grew from the first group of compounds, and how in the higher compounds the aldehyde and the sulphon groups were introduced with a purpose clear to the synthetic chemist. The speaker pointed out the peculiarities, physical and physiological, of the various groups entering into the simple and complex synthetics, and related how the synthesists had labored to adjust the compounds of simple synthetics or alkaloids with groups of known influence so as to produce a balanced medicament.

Prof. Kahn performed a number of chemical experiments to illustrate his discourse. At the conclusion of his address he received the formal thanks of the society.

P. C. P. Has Some Ball-Players.

Down in Philadelphia they are saying that N. Y. C. P. stands for "Naw; you can't play," because the Philadelphia College of Pharmacy baseball team again defeated the representatives of the College of Pharmacy of the City of New York, Columbia University, in the second annual inter-city game, played at this city, April 14th. Only six innings were played because the principal feature of the occasion was a driving rain; in fact so much in evidence was the rain that a lay spectator was led to remark that like all things turned out by druggists the game was mostly water.

P. C. P.'s vigorous swatting netted them 7 bingles, each resulting in a tally, while their habit of getting in the way of the ball limited the N. Y. aggregation to 3 scores. The New Yorkers also had twice as many instances of cerated digits as the Phillies.

There will be a return game at Philadelphia, May 6th.

The Illinois supreme court has declared unconstitutional the section of the State medical practice act which required an itinerant medicine pedler to pay a license tax of \$100 a year. This ruling was based on an "equal rights" plea.

Chicago Association.

In his first report as president of the Chicago Retail Druggists' Association B. A. Hoelzer at a meeting held April 11th discussed the many problems in which his fellow-druggists were interested, touching upon legislative matters, commissions on "want ads," telegrams, etc., propagandic work, price protection, and the sale of narcotics among other things. This report was referred to the executive committee.

Secretary I. M. Light and Treasurer C. A. Storer reported a cash balance of \$1,245.66. The secretary's report also included an account of the good work being done by the collection department, the advertising committee, and the propaganda committee. The association is carrying an advertisement in one of the local newspapers, calling the attention of mothers to the value of the neighborhood drug store.

It was decided to accept an offer of 10 per cent. commission on telegrams sent in by telephone.

There was considerable discussion of ways and means of curtailing the privileges of itinerant venders of medicines. An attempt will be made to secure legislation for that purpose which will prove constitutional.

Price protection and the Miles decision aroused a deal of interest. A plan of protection that apparently would be legal and effective was outlined and recommended to the National Association of Retail Druggists.

Philadelphia Druggists as Minstrels.

Black-faced and grotesquely garbed the minstrel troupe of the Philadelphia Association of Retail Druggists enjoyed themselves and amused their fellow druggists April 18th, on the occasion of the annual gala night of the association. The passages of wit and humor had a pharmacal flavor that acted as a tonic to joke and jokee, and the fun-making thrusts at well-known men were hilariously received.

Some 500 persons attended the entertainment which, in addition to the minstrel show, included a musical concert by the association's mandolin club. Dancing completed the evening's enjoyable events.

Ohio Druggists and Doctors Dine.

One hundred and fifteen physicians of that city were the guests of the Columbus (Ohio) Retail Druggists' Association at a banquet April 5th.

Prof. John Uri Lloyd, of Cincinnati, was the speaker of the occasion, telling about "Ethical Preparations." H. W. Miller was toastmaster. The toasts included "The National Association of Retail Druggists," by T. H. Potts, of Chicago; "Get Together," by Dr. W. D. Deuschle, of Columbus; "The United States Pharmacopoeia," by Prof. J. H. Beal, of Scio, Ohio, and "The National Formulary Propaganda," by Dr. W. A. P. Andrews, of New York.

Satisfactory progress is being made in the work of establishing a medicinal plant garden at the College of Pharmacy of the University of Minnesota. The plans have been prepared by Prof. Newcomb, and the regents of the university have appropriated \$500 for the work. Prof. Clements of the botanical department of the university will co-operate with the pharmacal faculty in this matter, as he will have a garden of economic plants adjoining the drug-plant garden.

Ewen McIntyre, the oldest living graduate of the College of Pharmacy of the City of New York, Columbia University, and Mrs. McIntyre, had been married sixty years April 30th. They have a large family, one of the sons, Ewen, Jr., conducting at 992 Sixth avenue, corner of Fifty-sixth street, the drug business established by his father at Broadway and Eighteenth street sixty-four years ago.

Three hundred members of the Kansas City (Mo.) Retail Druggists' Association attended the annual banquet of the association March 22d. According to the local press the poor drug men were not permitted surcease of woes even on this gala occasion, the lay guests embracing every opportunity to "heckle" the downtrodden pill-rollers. But it was all good-natured joshing.

A Wisconsin druggist has been mulcted for damages amounting to \$150 in a suit brought by a farmer to whom the druggist had sold "blue ointment" to be used on animals as a parasiticide. The farmer lost several cows from mercurial poisoning.

Druggists and the Liquor Laws.

An internal revenue agent at Miami, Ohio, has received from the department a ruling that any retail merchants purchasing small quantities of alcoholic liquors for the accommodation of customers and at the request of the latter, even when no profit is charged in the transaction, are liable to a tax as retail liquor dealers. This would apply in the case of a druggist sending out for the whisky specified in some of the recent newspaper "prescriptions."

In Colorado a physician owner of a drug store has been fined \$25 for dispensing whisky on prescriptions written by himself.

The police officials of Bellingham, Wash., are endeavoring to get a court decision as to the right of a physician-druggist to dispense liquors on his own prescriptions.

At New Castle, Ind., the prosecuting attorney has concluded that the State "blind-tiger" law cannot be invoked in proceedings against druggists charged with selling liquors illicitly. The governor of Indiana has advised the board of pharmacy that it may revoke the license of any druggist selling intoxicating liquors contrary to law.

An Iowa druggist has been convicted and sentenced on a charge of violating the liquor law by selling a "bitters" nostrum.

Federal Positions Open.

May 24th the United States civil service commission will conduct an examination to secure eligibles for several positions as *assistant* in the paper and textile laboratories of the bureau of standards, at salaries ranging from \$900 to \$1,600 a year. Persons of technical experience and education are wanted. The candidates will be examined in general physics and chemistry and practical paper technology or textile technology. Applicants are required to be between the ages of twenty and thirty-five years.

On the same date the commission will conduct an examination to secure eligibles for the position of *assistant chemical engineer* in forest products in the forest service at Madison, Wis. This position pays from \$1,200 to \$1,500 a year and is open to men only who are more than twenty years old and not yet fifty and who have had practical training for the position. The examination will embrace the subjects of chemical arithmetic, engineering, and chemistry of forest products.

Rikers Fight Change in United Drug Co.

At a recent meeting of the United Drug Company it was decided to transfer the stock and holdings of the company, which is a New Jersey corporation, to Massachusetts. It was planned to bring about this action early in the past month. This plan did not meet with the approval of the William B. Riker & Son Company, which owns 120 shares of United stock, and the Riker company sought a restraining order from the New Jersey courts.

Arguments on the Riker petition were heard by Vice-Chancellor Emery, who granted an injunction to hold for two weeks, during which time the various points in controversy will be considered.

May Meetings of State Associations.

ALABAMA, 16th to 18th, at Birmingham.
 ARKANSAS, 9th to 11th, at Little Rock.
 CALIFORNIA, 16th to 19th, at Sacramento.
 IDAHO, 10th and 11th, at Twin Falls.
 KANSAS, 24th to 26th, at Topeka.
 LOUISIANA, 10th to 12th, at New Orleans.
 OKLAHOMA, 16th to 18th, at McAlester.

E. F. Kelly, of Baltimore, Md., the secretary of the Maryland Pharmaceutical Association and of the Baltimore branch of the American Pharmaceutical Association, has resigned from the superintendency of the laboratories of Sharp & Dohme.

Howard B. French, president of the Philadelphia College of Pharmacy, was the guest of honor at a banquet April 4th, on which occasion a life-size portrait of Mr. French was presented to the college by the alumni.

Albany, N. Y., now has an ordinance requiring that druggists selling phenol shall, in addition to labeling the container carefully, make a record of the sale including the names of the seller and the purchaser.

Two Good Ones.

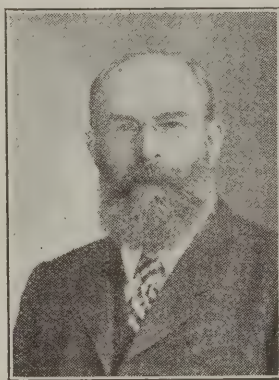
Here we have two men entitled to more than mere passing notice, as each has done and is doing good work in his own line. If pharmacy and medicine had more such men progress in the two professions would be more rapid.

Dr. George H. Simmons.

If all men are loved, as some have been, for the enemies they have made, Dr. George H. Simmons is surely one of the much beloved, for he has thrown more bombshells and bigger bombshells into the camp of the more-or-less-respectable-appearing medical fakers than any other one man. And when he has been asked for his photograph for publication he has always met the request with a pleasant but firm No. The likeness of him we are showing herewith is



DR. G. H. SIMMONS.



E. C. GOETTING.

enlarged from a group taken of the trustees of the United States Pharmacopoeial Convention, of which body he became a member November 17th, 1909, succeeding S. A. D. Sheppard, who resigned a year previously.

Dr. Simmons was born in England, January 2d, 1853, and came to the United States when he was seventeen years of age. He studied at Tobar College, Iowa, at the University of Nebraska, at the Hahnemann Medical College, and at Rush Medical College. His diplomas from the latter two Chicago institutions are dated 1882 and 1892 respectively. He has done much post-graduate work in this country and in Europe, and has a long string of honorary titles. He was secretary of his State (Nebraska) association before he became the secretary of the American Medical Association and the editor of its *Journal* in 1899. In this latter position he has wielded a tremendous influence. His work in reorganizing and building up the association has been most effective, and as head of the association's council on pharmacy and chemistry he has accomplished much in the direction of ridding both physicians and pharmacists of the fakers who, like the Old Man of the Sea, had ridden them nearly to death.

Ernest C. Goetting.

Ernest C. Goetting, the happy bachelor druggist for long identified with the northwest corner of Amsterdam avenue and One Hundredth street, this city, has sold his store there and intends to take a little vacation, some of which will be spent in Hanover, Germany, where he was born in 1849. Mr. Goetting adopted America as his home in 1876, having previously equipped himself for his career as an apotheker in the thorough manner in vogue in the Fatherland. Arriving at New York the young man soon found a job at Herman Paepke's store, Sixth avenue and Fourteenth street, which he succeeded in holding down while he was becoming acquainted with the ways of this country. He learned his lesson so well that he soon was able to assume the managership of the store of his uncle, George Goetting, at Sixth avenue and Forty-first street. This store he bought in 1879. An even dozen years he ran this place, and then sold it in 1891. Soon afterward he located at the Amsterdam avenue corner with which he has been identified for a score of years.

Not only is Mr. Goetting a recognized authority on pharmaceutical matters, but a facile writer on them as well, and he is one of those busy men who finds time for much

work outside of his store. In the affairs of the New York German Apothecaries' Society he has long been prominent, and in 1887 to 1889 served that society as its president. He is also a member of the Old German Students' Society of New York, the German Hospital Society, and the Masonic fraternity.

Pharmacy in the Philippines.*

Now that the Philippine Medical School is thoroughly established and is well under way in offering scientific instruction to its students, and the medical department of Santo Tomas University has shown signs of improvement, it has been thought well to take up the question of the Filipino pharmacist. The question of his efficiency and the local facilities for training pharmacists has been studied with a view of recommending necessary improvements in the existing courses in the three Manila schools of pharmacy, as well as looking toward the establishment of a school of pharmacy in connection with the Philippine Medical School and the University of the Philippines.

In the Philippines, pharmacy is considered one of the learned professions; the pharmacist is in rank next to the physician, and, like the latter, has too often proved ill trained for many of the simple duties of his trade. In many of the towns of the provinces he forms an important factor in the social scale and has sometimes engaged in politics.

In Manila there are good pharmacies, but with very few exceptions the provinces are without efficient or competent pharmacists. The training in the local schools of pharmacy is based on the Spanish system and is not in accord with the modern European methods. Thus we are facing the necessity of having the prescriptions of American and American-trained physicians sent to Manila to be filled. These prescriptions are sometimes written by Manila physicians, sent to the provinces and then returned to Manila to be filled. This state of affairs almost compels the graduates of the Philippine Medical School to be their own pharmacists in the provinces. Such a condition hampers the work of the bureau of health and will defeat many of the efforts of modern medical education in the Islands until improvement is brought about.

With the possible exception of one school—the school of pharmacy of Santo Tomas University—the institutions in Manila are in nowise prepared to train competent pharmacists. Even the graduates of the Santo Tomas school have great difficulty in passing the examinations of the board of pharmaceutical examiners, and radical changes must be made in this school to make it an efficient institution.

In July, 1909, twenty-three candidates entered the examinations of the board of pharmaceutical examiners. Only one passed. At the 1910 examination, twenty-six candidates were entered; not a single candidate passed. The highest grade given was 53 per cent.

The legal requirements are not to be considered drastic. They were made to suit the conditions of the country and are just as liberal as is compatible with public safety in the matters of fairly well-trained pharmacists. Any student who has had a moderately good training in pharmacy should have no trouble in passing the examinations.

If the educational facilities for training pharmacists are not soon improved it will probably be necessary to relax the legal requirements somewhat, otherwise the drug business will be monopolized by a small number of pharmacists. The Filipino is quick to take advantage and is decidedly mercenary when he controls the situation. For this reason it is not advisable to enforce rigidly the regulations covering the practice of midwifery in these islands. It was found in Manila that the few competent midwives would quickly run up their charges to exorbitant rates when the ban was put on their less capable sisters in the profession. The Filipino pharmacist, as well as the Filipino physician, usually regulates his charges by the necessity for his services in a particular case. In an emergency he is often a robber. As an example: one of the medical health officers had occasion to require immediately 2 liters of saline solution in an emergency case. He dispatched a messenger to the local *botica* (drug store) on a hurry-up call for the solution. The bill presented for the 2 liters was 16 pesos (\$8).

John G. Cole, of Cohoes, N. Y., has been appointed postmaster at that office.

*From a regular correspondent in the *Journal of the American Medical Association*.

News of the Pharmacy Boards.

List of Board Secretaries.

In the following list are to be found the names and addresses of the secretaries of the various boards of pharmacy of the country. When the date and place of the next meeting of a board are known they are given also.

Secretaries are requested to keep us informed as to dates and places.

ALABAMA—May 15th, at Birmingham. E. P. Galt, Selma.
 ARIZONA—November 8th, at Phoenix. A. G. Hulett, Phoenix.
 ARKANSAS—May 8th, at Little Rock. J. F. Dowdy, Little Rock.
 CALIFORNIA—Louis Zeh, San Francisco.
 COLORADO—June 10th and 11th, at Denver. S. L. Bresler, Denver.
 CONNECTICUT—June 6th, at Hartford. J. A. Levery, Bridgeport.
 DELAWARE—Albert Dougherty, Wilmington.
 DISTRICT OF COLUMBIA—July 13th and 14th, at Washington. S. L. Hilton, Washington.
 FLORIDA—June 12th and 13th, at Tampa. D. W. Ramsaur, Palatka.
 GEORGIA—C. D. Jordan, Monticello.
 IDAHO—J. M. Starrh, Shoshone.
 ILLINOIS—F. C. Dodds, Springfield.
 INDIANA—July 11th and 12th, at Indianapolis. W. H. Rud-der, Salem.
 IOWA—June 6th, at Des Moines. E. J. Moore, Des Moines.
 KANSAS—May 25th, at Topeka. W. E. Sherriff, Ellsworth.
 KENTUCKY—J. W. Gayle, Frankfort.
 LOUISIANA—May 9th to 11th, at New Orleans. F. A. Earhart, New Orleans.
 MAINE—June 14th and 15th, at Augusta. F. W. Bucknam, Skowhegan.
 MARYLAND—Ephraim Bacon, Roland Park.
 MASSACHUSETTS—Every Tuesday between September 1st and July 1st, at Boston. P. J. McCormick, Boston.
 MICHIGAN—E. J. Rodgers, Port Huron.
 MINNESOTA—July 18th, at Minneapolis. C. T. Heller, St. Paul.
 MISSISSIPPI—October 3d, at Jackson. L. H. Wilkinson, Greenwood.
 MISSOURI—June 12th, at Cape Girardeau. C. E. Zinn, Kansas City.
 MONTANA—T. M. Kehoe, Billings.
 NEBRASKA—A. V. Pease, Fairbury.
 NEVADA—May 3d, at Reno. R. L. Prouty, Tonopah.
 NEW HAMPSHIRE—May 24th, at Concord. F. H. Wingate, Nashua.
 NEW JERSEY—July 20th and 21st, at Trenton. H. A. Jordan, Bridgeton.
 NEW MEXICO—A. J. Fisher, Santa Fe.
 NEW YORK—May 24th and 25th, at New York, Albany and Buffalo. W. L. Bradt, Albany.
 NORTH CAROLINA—July 7th, at Morehead City. F. W. Hancock, Oxford.
 NORTH DAKOTA—June 20th, at Fargo. W. S. Parker, Lisbon.
 OHIO—June 20th to 23d, at Columbus. F. H. Frost, Columbus.
 OKLAHOMA—J. C. Burton, Stroud.
 OREGON—June 6th and 7th, at Portland. F. C. Pozzi, Portland.
 PENNSYLVANIA—June 8th and 9th, at Pittsburg and Philadelphia. L. L. Walton, Williamsport.
 RHODE ISLAND—June 6th, at Providence. J. E. Brennan, Pawtucket.
 SOUTH CAROLINA—July 3d and 4th, at Greenville. F. M. Smith, Charleston.
 SOUTH DAKOTA—July 12th, at Lead. E. C. Bent, Dell Rapids.
 TENNESSEE—I. B. Clark, Nashville.
 TEXAS—May 16th, at San Antonio. R. H. Walker, Gonzales.
 UTAH—July 18th and 19th, at Salt Lake City. W. H. Dayton, Salt Lake.
 VERMONT—D. F. Davis, Barre.
 VIRGINIA—July 25th, at Richmond. T. A. Miller, Richmond.
 WASHINGTON—P. Jensen, Tacoma.
 WEST VIRGINIA—May 5th and 6th, at Wheeling. A. Walker, Sutton.
 WISCONSIN—Edward Williams, Madison.
 WYOMING—C. B. Gunnell, Evanston.

California Board.

Several arrests have followed an investigation by the inspectors of the California Board of Pharmacy as to the extent to which the pharmacy law was being complied with. It is reported that five druggists in small towns in one county plead guilty to having left their stores in charge of unlicensed persons. Each was fined \$20.

Colorado Board.

There were fifty applicants for registration examined by the Colorado Board of Pharmacy at the meeting held March 17th and 18th, at Denver. Only thirteen of these were successful; they are:

C. R. DePue, N. H. Lenz, G. F. Metzger, William Oberhausen, C. E. Spahn, R. A. White, and Louis Zackheim, all of Denver; W. J. Bishop, of Grand Junction; J. R. Blackstick, of Gunnison; L. W. Critz, of Colorado Springs; R. S. Gordan, of Edgewater; Henry Hidderson, of Langmont; and C. L. Kendeigh, of Grand Junction.

The next meeting of the board will be held at Denver, June 10th.

Newspaper accounts have it that the board is interested in a project to establish a school of pharmacy at Denver.

Connecticut Board.

Twenty-two of thirty-eight applicants for registration passed the examination of the Connecticut Board of Pharmacy at the meeting held March 7th, at Hartford.

C. H. W. Newton, of Waterbury, has been appointed a member of the board. Governor Baldwin is reported to have said that the fact that Mr. Newton was a British subject, he not having completed his application for naturalization, in no way affected his qualifying for the office to which he was appointed.

District of Columbia Board.

Of the ten applicants for registration examined at the meeting of the District of Columbia Board of Pharmacy held April 13th and 14th, the following three were successful:

N. S. Avinger, Joseph Lear, and W. F. Passer.

The next meeting of the board will be held July 13th and 14th.

The board is endeavoring to prohibit the selling of narcotic and poisonous drugs by dental supply houses except under the personal supervision of a registered pharmacist.

Illinois Board.

An opinion of Attorney-General Stead of Illinois in the matter of expenditure of moneys collected by the State board of game commissioners is in effect that such expenditure is illegal, that all fees, fines, etc., collected by any board must be turned into the State treasury and no expenditures shall be made by the board except by means of money appropriated by the legislature for the purpose. This opinion affects the board of pharmacy, and in common with other State bodies the board is being handicapped in its work.

Because of an overabundance of other duties C. H. Avery, of Chicago, has tendered to the governor his resignation as a member of the board.

Iowa Board.

At the February meeting of the Iowa Board of Pharmacy sixty-eight applicants for registration were examined; the following twenty-three were successful:

J. J. Gillespie, H. H. Nabens, C. A. Palmer, W. H. Ringen, L. L. Smith, W. W. Smith, and J. H. Willett, all of Des Moines; G. J. Carter, of Waukon; Fay Ellis, of Sioux City; Jerome Huber, of Cylinder; R. J. Mallory, of Williams; Harry Miller, of Brayton; A. J. Nelson, of Burlington; W. H. Paustion, of Holstein; J. F. Reinhold, of Manning; F. C. Ribison, of Anita; R. E. Roney, of Decorah; H. E. Rousch, of Tingley; H. B. Scotchorn, of Lamont; A. H. Stephan, of Davenport; O. F. Trumbo, of Osceola; F. R. White, of Akron; and M. J. Wilkinson, of Marengo.

The next meeting of the board will be held at Des Moines, June 6th.

Massachusetts Board.

During the month of March the Massachusetts Board of Pharmacy held examinations on the 7th, 14th and 21st; in all fifty-two applicants for registration were examined, the following twenty-six passing:

As pharmacists—Charles Brown, of Roxbury; F. H. Coolbroth, of Springfield; W. J. Cullinan, of Lowell; Vera G. Fox, of Newton; E. W. Hackett, of Salem; William Linahan, of Watertown; J. F. McMahon, of Brookline; T. J. Mullarkey, of Haverhill; Charles Pomponio, of Waverley; H. I. Quennell, of Somerville; G. A. Rivers, of New Bedford; and H. J. Simmers, of Springfield.

As assistants—E. W. Blight, of Pittsfield; Auguste Boas, of Fall River; W. A. Boughner, of Dorchester; F. T. Buckley, of Roxbury; Robert Cowan, of Boston; A. E. Flathers, of Methuen; J. A. Gallant, of New Bedford; G. N. Gilbert, of Pittsfield; F. W. Kowenda and J. A. La Fontaine, both of Somerville; H. D. Leighton, of Lowell; R. P. L. Nadeau, of Fall River; R. A. Peckham, of Worcester; and A. J. Sands, of Amesbury.

Mississippi Board.

At the meeting of the Mississippi Board of Pharmacy held April 4th, at Jackson the board examined sixty-four applicants for registration, of whom the following thirty-five were successful:

C. C. Allen, of University; E. F. Barnes, of Oak Ridge; Charles Bradford, of Hattiesburg; Glenn Bright, of University; D. C. Burch and G. W. Clark, both of Verona; J. R. Cooper, of Pachuta; E. M. Davis, of Purvis; J. F. Dixon, of Natchez; W. T. Ellis, of Greenville; C. V. Gibson, of Grenada; Jay Gore, of Coffeeville; W. C. Harrison, of Vicksburg; A. J. Hemphill, of McCool; E. B. Holbrook, of Jackson; C. W. Holcomb, of Phenix; W. E. Holcomb, of Magnolia; B. F. Huck, of Independence, La.; Hunter Huddle, of Alexander, La.; O. E. Jordan, of Poplarville; Georgia Knight, of Potosi; R. H. Lewis, of Gulfport; H. J. McMillan, of Hickory; C. G. Mansfield, of Bentonla; S. T. Moore, of Meridian; H. L. Morgan, of Canton; H. V. Mortimer, of Greenwood; L. E. Pennington, of Decatur; A. M. Redmond, of Jackson; G. W. Staples, of Meridian; E. J. Stockstill, of Picayune; D. V. Stuart, of Centerville; J. E. Thomas, of Eupora; H. M. Todd, of Jackson; and J. B. Walton, of Lexington.

The next meeting of the board will be held at Jackson, October 3d.

Missouri Board.

At the March meeting of the Missouri Board of Pharmacy the following applicants for registration were successful:

As pharmacists—I. R. Aber, Christo Abramopoulos, A. C. Ayers, W. M. Bodine, J. L. Dye, G. E. Egly, G. H. Emick, R. A. Glidewell, H. B. Hedrick, J. R. Hodges, Raymond Jakobe, L. A. Jamison, C. E. Kirschner, H. E. Martin, G. I. Nugent, Joseph Ostle, J. B. Ricedorff, C. R. Rostine, M. M. Russell, L. J. Seymour, F. E. Soulier, Izzzy Stevens, Anthony Tripi, R. E. Walker, H. C. White, Sister Lucien Woodlock, A. D. Woods, and C. C. Worley, all of Kansas City; J. A. Aldred, of Kansas City, Kan.; J. F. Anderson, of Coffeyville, Kan.; J. H. Anderson, of Hannibal; J. D. Boyles, of Brookfield; T. C. Brown, of Chillicothe; W. J. Cecil, of Windsor; T. F. Clark, of Weston; A. M. Colley, of Rothville; A. E. Crain, of Trenton; F. M. Davis, of Galatin; H. V. De Goler, of Kansas City, Kan.; J. J. De Vereaux, of St. Louis; L. E. Dotson, of Marshall; J. W. Edelin, of Trenton; Mina Enix, of Vinita, Okla.; Arthur Geyer, of Herington, Kan.; W. S. Harris, of Sturgeon; W. P. Henry, of Plattsburg; W. H. Harron, of Lansing, Kan.; J. B. Hopper, of Columbia; J. A. Hunter, of Carrollton; E. B. Iden, of Smithville; C. F. Johnson, of Buffalo; D. R. King, of Gallatin; A. E. Michie, of Webb City; Hazel P. Morgan, of Deepwater; W. D. Muir, of Windsor; Walter Myren, of Des Moines, Ia.; J. Q. Page, of Central City, Ia.; E. C. Phillips, of Oregon; C. R. Pike, of Willard; L. R. Rice, of Lexington; S. A. Roach, of Barnard; Ora F. Roberts, of Wyaconda; H. I. Sears, of La Plata; G. L. Shortridge, of Pleasant Hill; J. B. Stapleton and DeW. C. Thompson, both of Plattsburg; C. W. Vantrees, of Butler; C. J. Walker and A. J. Warner, both of Hannibal; G. W. Watkins, of Laddonia; and O. L. Yancey, of Hunnewell.

As assistants—H. C. Brockhouse, of Peculiar; A. M. Capland, of Kansas City, Mo.; J. A. Crook, of Des Moines, Ia.; D. R. Galbreath, of Clark; L. E. Gardner, of Kansas City; E. C. Gerding, of St. Joseph; E. G. Gratiquy, of Kansas City, Kan.; R. E. Hayes, of St. Joseph; W. E. Hurst, of Gentry; K. K. Kane, of Carthage; W. M. McCauley, of Doniphan; W. R. Meador, of Belton; and J. C. Shuff, of Pickering.

The next meeting of the board will be held June 12th at Cape Girardeau.

New Hampshire Board.

Seven applicants for registration were examined by the New Hampshire Board of Pharmacy at the meeting held March 22d, at Nashua. Only one, F. H. Whiting, of Greenville, was successful.

The next meeting of the board will be held May 24th, at Concord.

New York Board.

The first examination conducted by the New York Board of Pharmacy established by the law of 1910 was held February 1st and 2d, at Albany, Buffalo, and this city. Seventy applicants for registration appeared, more than half of whom sought licenses as pharmacists. Fifteen of the latter were successful, and twenty-one passed the examination for druggists' license. The successful ones are:

As pharmacists—Isidor Berkowitz, Samuel Blatt, J. H. Clarke, Abraham Cohen, J. J. Depuy, Jacob Etler, Elvira Kalkbrenner, Isidore Kapolsky, Paul Rademacher, C. M. Roes, Harris Schlesinger, Deboro Spero, and Max Turnerman, all at this city; L. R. Cornell, at Buffalo; and S. E. Shanks, at Albany.

As druggists—J. R. A. Balje, J. H. Hayes, F. W. Isles, H. W. Maybee, D. H. Norton, C. E. Ostrander, P. M. J. Ryan, F. Salvione, H. W. Van Loan, and C. G. Watson, all at Albany; A. H. Coling, J. J. Courneen, R. H. Dutcher, R. W. Englehardt, L. H. Guard, O. A. Krampf, F. B. Malecki, R. E. Moore, T. W. Sullivan, and P. A. Weinstein, all at Buffalo; and Harold Westervelt, at this city.

The next examination by the board will be held May 24th and 25th, at Albany, Buffalo, and this city.

North Dakota Board.

At the meeting of the North Dakota Board of Pharmacy held March 21st to 23d, at Fargo, seventy applicants for registration were examined. The successful numbered forty-six, being the following:

As pharmacists—Arthur Anderson, of Grand Forks; Otto Anderson, of Manfred; S. M. Bennett, of Drake; Leslie Benno, of Minot; F. J. Berghan, of Lisbon; W. F. Crowley, of Devil's Lake; W. A. Erickson, of Fargo; W. F. Fuerstnow, of Tioga; H. L. Halverson, of Des Lacs; J. S. Kelly, of Grafton; F. M. Leland, of Fargo; M. C. Logan, of Hancock, Minn.; A. C. McInnes, of Devil's Lake; D. J. McNeil, of Milton; C. J. McWold, of Richardton; A. E. Madsen, of Rugby; G. P. Manning, of Hansboro; A. M. Neander, of Berthold; P. C. Pederson, of Hawley, Minn.; J. H. Peterson, of Des Lacs; W. H. Schram, of Herman, Minn.; Ingwold Simmons, of Fargo; H. L. Svienson, of Hamilton; S. F. Thompson, of Flaxton; C. P. Thomson, of Minto; and F. J. Warner, of Esmond.

As assistants—J. M. Asal, of Fargo; R. R. Barry, of Ambrose; A. M. Carvell, of Max; Harold Connelley, of Devil's Lake; O. M. Ellingson, of Cando; Nan Frazier, of Tower City; W. S. Johnson, of Crystal; E. C. Jorgen, of Rostray, Minn.; C. B. McDonald, of Grafton; Florence McDowell, of Palermo; J. E. Martin, of Fargo; Gerden Montgomery, of Inkster; G. R. Nelson, of Fargo; C. R. Odney, of Hatton; G. E. Rackow, of Hankinson; W. B. Smith, of Dickinson; O. B. Syurseth, of Lakota; John Whalen, of Yorke; William Wistrom, of Burlington; and C. L. Worsley, of Hansboro.

The next meeting of the board will be held June 20th, at Fargo.

Ohio Board.

In a letter recently sent to several grocery firms Secretary F. H. Frost of the Ohio Board of Pharmacy advised the grocers that the board considered the sale of solution of hydrogen dioxide by others than licensed pharmacists to be contrary to the State pharmacy law. It is the stated intention of the board to enforce the law in this connection, in accordance with the Secretary's interpretation.

Oregon Board.

An annual meeting of the Oregon Board of Pharmacy was held at Salem, March 14th and 15th. During this meeting fifty-five applicants for registration were examined, of whom the following thirty-nine were successful:

As pharmacists—W. P. Hood, C. V. Johnson, C. C. Kelly, O. K. Laue, E. H. Mercer, W. A. Norby, W. S. Redfield, F. O. Rose, and L. E. Wray, all of Portland; L. F. Allen, of Wallawa; G. H. Blackman, of Junction City; W. R. Bunn, of Yamhill; E. B. Cochrane, of Baker; H. W. Crow, of Guyman, Okla.; F. G. Evenden, of Astoria; A. N. Fischer, and

Paul Geisler, both of Lents; J. A. Goodner, of Walford, N. D.; W. E. Grosshogg, of Centralia, Wash.; R. B. Hamilton, of Baker City; J. P. Hanley, of Vancouver, Wash.; F. J. Harris, of Pendleton; W. D. McCurry, of Union; A. E. Menizer, of Mitchell, S. D.; E. A. Schafer, of Astoria; and G. A. Wilson, of Scappoose.

As assistants—Louis Bauer, A. J. Custer, Henry Handahl, W. S. Hopkins, W. R. Monroe, Ralph Nichols, Erick Radke, Stuart Stayner, and M. M. Williams, all of Portland; Harry Hart, of Cottage Grove; Eugene Levy, of Montavilla; H. H. Mack, of Huntington; and L. M. Nelson, of Gross Valley.

The next meeting of the board will be held June 6th and 7th, at Portland.

At the March meeting the following officers were elected: President, Miss Kittie W. Harbord, of Salem; treasurer, F. H. Caldwell, of Newberg; and secretary, F. C. Pozzi, of Portland.

South Carolina Board.

At the meeting of the South Carolina Board held March 15th, at Charleston, sixteen applicants for registration were examined. The five who were successful are:

A. W. Cherry, of Orangeburg; C. R. Cowan, of Rock Hill; L. G. Day, of Lexington; S. O. Floyd, of Charleston; and W. C. McManus, of Chesterfield.

The next meeting of the board will be held July 3d and 4th, at Greenville.

Popularizing an Insect Powder.*

The savage ancestry of man can seldom be appealed to in advertising, but the public demonstration of the effectiveness of an insect exterminator drew crowds, interested them, convinced them—and made the originator of the scheme wealthy.

A druggist in the rural district of Michigan originated and manufactured an insect powder, but after advertising it in the local territory he found that his customers placed no confidence in his powder and often bought inferior quality in preference to his own make.

To stimulate an interest in this powder he gathered numerous insects of every description and displayed them in glass jars in his show window.

Then he began a new advertising campaign, calling special attention to the insects in his show windows and advertising every afternoon a glass jar filled with insects would be opened and the vermin killed by his powder. Not a very inviting attraction, you say? Possibly not, but every afternoon for a month the walk in front of the store was crowded to watch the performance.

This demonstration created a universal interest, the local papers advertised it, the metropolis dailies told of the unique advertising campaign, and in a short time there was such a demand for the insect powder that every druggist in the county was retailing it. Then the inquiries from wholesale houses began to come in, and in a year the druggist sold his store to devote his entire time to the manufacture of his insect powder.

A French court has lately allowed a claim for \$800 damages against a pharmacist who, having been consulted by a domestic servant relative to the treatment necessary for a bruised shoulder, supplied a lotion and volunteered the information that the attention of a physician was not needed. The injury proved to be a dislocation later requiring the services of a surgeon because proper treatment had been delayed.

The Louisiana Board of Health has declared its intention of rigidly enforcing the pure drugs law. Samples of drugs and preparations are being collected and analyzed, and several prosecutions have been started.

Prof. Alexander Smith, director of the chemical laboratories of the University of Chicago, has been appointed professor of chemistry at Columbia University to succeed Dr. C. T. Chandler.

Prof. Virgil Coblenz has resigned from the chair of general chemistry at Columbia University and his professorship at the College of Pharmacy of the City of New York.

Prof. C. L. Pickel has resigned as instructor in pharmacy at the Ferris Institute, Big Rapids, Mich. E. J. Parr, of Detroit, is his successor.

*From System.

Obituaries.

ALBERT B. BALTZLY.

Albert Bates Baltzly, one of the most successful druggists of the upper west side of New York, was found dead in his store at Broadway and Ninety-sixth street by one of his clerks who opened the place on the morning of April 19th. His death was due to heart disease. He had remained in the store after the clerks had locked up the previous night, for the purpose of looking over his bills.

Mr. Baltzly was born near Massillon, Ohio, fifty years ago, and entered the drug business as a boy in the store of Grossklaus & Ricksecker, of Navarre, that State. He had been in business in this city many years. Before opening the Broadway store ten years ago he had a store in Harlem, but had disposed of that when the Broadway business grew so that it required all his attention. He was prominent in association matters, and with his wife was a regular attendant at the meetings of the National Association of Retail Druggists and the New York State Pharmaceutical Association. He was one of the leading men in local N. A. R. D. circles, having been treasurer of the branch in this city. At one time he was president of the Hudson River Pharmaceutical Association, and upper west side organization of this city, and was a member of the American Pharmaceutical Association. He leaves a wife and daughter.

J. K. WILLIAMS.

Capt. John Kirby Williams, of Hartford, Conn., died April 18th, aged seventy-three years. He was born at Cromwell, Conn., and received his early education at the academy in his native town. He became an apprentice in pharmacy at Hartford in 1853, and clerked until 1862, when he entered the Union army as a lieutenant of volunteers. In 1870 he went into business and played a prominent part in commercial affairs of his city and State ever since. He was for a long time the legislative representative of the pharmacists of the State and was largely instrumental in forming the pharmacy statutes. Capt. Williams was prominent in civic affairs, particularly those having to do with education. He is survived by a son and a daughter.

J. B. WEBB.

James B. Webb, of DeWitt, Ia., who retired from business a few months ago, died April 12th, at the age of seventy-one years. He was a native of New York State, but was one of the first druggists licensed in Iowa, having passed fifty-one years in the same store at DeWitt. He was the treasurer of the Iowa Pharmaceutical Association for the past twenty-three years. His wife and two children survive him.

W. A. SPALDING.

Warren Alphonso Spalding, of New Haven, Conn., formerly lecturer and instructor in pharmacy at the Yale medical school, died April 14th, aged sixty-six years. He was a native of Vermont; an active member of the American Pharmaceutical Association and Connecticut Pharmaceutical Association, and the president of the National Tradesmen's Bank. He leaves three sons and two daughters.

B. G. AMEND.

Bernard G. Amend, president of the firm of Eimer & Amend, of this city, died April 6th, at the age of ninety years. He was born at Darmstadt, Germany, and came to this country in 1847, clerking in a retail store in this city, which he later purchased. Mr. Amend was a man of considerable means and a member of several educational and philanthropic organizations of this city.

JOHN GERTLER.

John Gertler, of the firm of Gertler, Wall & Gertler, of Indianapolis, Ind., was killed in an automobile accident March 25th. He was the dean of the National Trade School and Technical Institute.

Following are recently reported deaths of other persons in the pharmaceutical world:

CHARLES B. ALLEN, of Patton's drug store, York, Pa., April 3d, aged sixty-seven years.

HERMAN BARTEL, of this city, April 8th.

JOSEPH F. BAUMEISTER, a thirty-third degree Mason, of Scranton, Pa., March 23d, aged forty-nine years.

MORTIMER H. BICKLEY, at Wilmington, Del., April 2d, aged eighty years.

J. C. BORCHARDT, of Chicago, aged seventy-one years.

J. P. BUFFINGTON, of Defiance, O., March 30th, aged eighty-three years.

W. F. DAVIS, of Lebanon, N. H., March 9th, aged seventy years.

JAMES DOYLE, of Constableville, N. Y., an old-time apothecary.

HOWARD CLARKE FAY, of Turner's drug store, Altoona, Pa., March 25th, aged thirty-two years.

B. E. FISH, of Chappell, Neb., March 21st, aged forty-seven years. He left an estate valued at \$100,000.

Dr. A. R. GRAY, of Jenkinstown, Pa., aged seventy-nine years.

JOHN F. GROSSKLAUS, of Navarre, O., formerly of the firm of Grossklaus & Ricksecker, and preceptor of the late A. B. Baltzly, of this city, at Navarre, March 16th, aged eighty-five years.

GEORGE C. HAMAN, of Cedar Rapids, Ia., March 19th, aged seventy-three years.

ERNEST C. B. HARTUNG, of Pittsburg, Pa., March 29th, aged fifty years.

A. E. HORN, of Oshkosh, Wis., March 21st, aged forty-nine years.

Dr. JONATHAN A. C. HOWER, of Martinsburg, W. Va., March 28th, aged eighty-four years.

GEORGE W. HULL, of Lancaster, Pa., March 4th, aged sixty-eight years.

ROBERT S. JENKINSON, of Rockingham, N. C., April 2d, aged forty years.

JOSHUA A. LOOMIS, of Easthampton, Mass., a Civil War veteran, and Knight Templar, March 31st, aged seventy-three years.

JAMES J. MARRIN, of Holyoke, Mass.

CHESTER R. MILLER, of Lawrenceburg, Ind., aged forty-one years.

GEORGE P. MULHALL, of St. Louis, Mo., March 14th.

THOMAS M. NEWBOLD, of Philadelphia, Pa., April 2d, aged sixty-seven years.

GEORGE FITCH PARSONS, of Troy, N. Y., a prominent member of several fraternal organizations, April 4th, aged sixty-three years.

THOMAS B. PENTON, Chicago veteran druggist, at New Rochelle, N. Y., April 21st.

DAVID H. POLLOCK, of Beloit, Wis., at Orlando, Fla., April 15th, aged fifty-one years.

ROBERT RADEMAKER, of Washington, D. C., April 5th, aged thirty-eight years.

C. D. RANKIN, of Charlottetown, P. E. I., April 5th, aged fifty-eight years.

FREDERICK T. ROBINSON, of Brooklyn, Md., at Baltimore, April 10th, aged forty-three years.

HENRY T. ROHLFING, of St. Louis, April 5th, aged seventy-three years.

HENRY H. SMITH, at Spencerport, N. Y., April 1st, aged forty-eight years.

WILLIAM H. TUCK, of Wilkes-Barre, Pa., March 21st, aged forty-nine years.

THOMAS I. WEBB, of Nashville, Tenn., March 24th, aged seventy-three years. He was secretary of Spurlock-Neal & Co.

GEORGE C. WEBSTER, of Indianapolis, Ind., March 29th, aged sixty-seven years.

GEORGE N. WILBER, of Poughkeepsie, N. Y., April 6th, aged sixty-nine years.

G. R. WILEY, of Shawnee, Me.,

L. E. WILSON, of Honea Peth, S. C., March 31st.

FRANKLIN WINGER, of Ephrata, Pa., aged forty-seven years.

Alexander Richard Lewis, secretary of the firm of Johnson & Johnson, of New Brunswick, N. J., died at his home at Metuchen, N. J., April 9th, at the age of sixty years.

Arthur Edmunds Jenks, secretary of the Hanson-Jenks Company, of this city, died April 24th, aged forty-seven years.

Where Is Herbert B. Richardson?

Julius S. Velle, National Soldiers' Home, Tenn., wishes to communicate with Herbert B. Richardson, who about ten years ago was a naval apothecary in the service of the United States. Mr. Velle wants Mr. Richardson's aid in completing a claim for a pension. Any information relating to the whereabouts of Mr. Richardson sent to Mr. Velle will be gratefully received.

W. A. Gray Missing.

Almost two months ago William A. Gray, an aged druggist, of Washington, D. C., disappeared from a hospital in that city, and at the time of a recent report no trace of him has been found. The relatives of the missing man have offered a reward for information as to his whereabouts, furnished to his brother-in-law, G. B. Chew, 1606 Thirteenth street, N. W., Washington.

M. M. Osborne, of Elkins Park, Pa., applied himself to the subject of "Skin, Hair, Teeth, and Toilet" in his advertising folder for February, and set forth concisely and doubtless convincingly the superior usefulness of his line of preparations and accessories for enhancing the beauty of the hair and complexion, preserving the teeth, and generally aiding and supplementing natural attractiveness. He did not forget a postscript anent the high quality of the stock of his prescription department.

The druggists of Dayton, Wash., have entered into and made public an agreement that they will "discontinue to dispense or carry in stock all such liquors as brandies, wines and whiskies or other spirituous or malt liquors—alcohol excepted." Their action has received the public endorsement of the doctors of the city.

"The Stores," which have been giving our British brethren so much trouble, are to invade this city and country. The United Stores Association, with headquarters at Broadway and Thirty-first street (Steiner Building), New York, has been incorporated to do a retail co-operative business in all lines of merchandise, including drugs.

After having conducted it for more than forty years, J. D. A. Hartz, of College Point, N. Y., early in April sold his business to E. N. E. Klein, who had been associated with him for many years.

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Defining the Scope of the Food and Drugs Act.

Failure was the government's lot in the recent coca-cola case largely because of excessive elaboration in the interpretation of the food and drugs act by those entrusted with its enforcement. Statutory law is a thing of pharaseology. The time to arrange the application of a law is when it is in the formative state, when it is receiving consideration at the hands of the law-makers. A statute of seemingly most comprehensive scope oftentimes takes on a very constricted appearance when viewed, as the courts must view a statute, as a word-contained provision for a definitely stated purpose. Hence it is that zealous combatters of the evil at which an act is aimed, frequently have their case topple over because the superstructure of their contentions was too large for the base.

With all its seeming comprehensiveness, the food and drugs act falls far short of reaching the ultimate in the prevention of fraud and sophistry in aliments and medicines. Certain stated things and these alone are forbidden by this statute. Some there have been who have not hesitated to proclaim the act as the terminator of all adulteration in food and drugs, whereas its scope for the greater part extends only to the wording of labels. And now comes a decision under the law that restricts its provisions to the bare wording of the actual label and assigns the impression that would be created by a label to a place without the scope of the statute. This decision was pronounced by Justice Veeder in the suit of the federal government against the American Druggists' Syndicate, one count of which had to do with the question of whether "peroxide cream" was a misnomer for a toilet preparation containing a very small proportion of hydrogen dioxide. As has been customary in cases of the sort, the government's contention was that through the use of the name "peroxide" the prospective purchaser was led to believe that the cream represented the properties of hydrogen dioxide, to an appreciable extent, and that, because the amount of hydrogen dioxide present was "insignificant," the label was misleading. A number of cases have been successfully prosecuted under the act on similar contentions, but Justice Veeder, before whom the case under consideration was argued, held that a label to be "false or misleading in any particular" must be false or misleading in a particular definitely specified in section eight of the act. In other words,

to constitute an infraction of the act the labeled drug must be an outright imitation of the product under whose name it is sold, or the contents of the package as originally marketed must have subsequently been sophisticated so as to deceive, or the label must fail to bear a correct statement of the amount of alcohol, opium, or other proscribed drug contained in the preparation.

Doubtless there are jurists who will differ with Justice Veeder in his limited interpretation of the phrase "false or misleading in any particular," although his ruling seems to be strictly in keeping with the letter of the law—and that marks the boundary of the statute. If this ruling is to stand, it is to be hoped that the act be amended so as to extend its scope, because, although it may be legal, it is not just to permit the exploitation of a "powerful strychnine tonic" containing only the small proportion of strychnine necessary to produce a bitter taste or respond to a chemical test. The strength of the nostrum "faker" lies more in the implications of his craftily worded labels and circulars than in any direct statements therein.

In this same case arose also the question of the relation of the act to unsubstantiated claims of therapeutic value. The ruling of the court on this point followed that in the case against Johnson in the matter of the misbranding of a "cancer cure," the learned justice opining that the act disclosed no purpose to hold manufacturers or venders to criminal responsibility for misstatements as to the curative or remedial effects of a medicinal preparation. Apparently this opinion was also influenced by the closely defined view the court took with regard to the interpretation of the qualifying phrase "in any particular." The Johnson case is pending in a higher federal court. If the outcome is an approval of the lower court the scope of the food and drugs act will have shrunk considerably from its original apparent extent, and a revision of its phraseology will be the duty of those to whom sophistry is sophistry whether by word, indirect statement, or implication.

Out of the peroxide cream case came a decision on still another moot point: the definition of the label. The government had included among the statements which it alleged were false and misleading those contained in a circular accompanying the container of the cream and enclosed in the same carton. These, in the court's opinion, not being in sight of the prospective purchaser could have no influence upon him and could not induce the sale of the preparation. And,

therefore, the term "label" was defined as a "statement, design or device affixed to an article."

It is to be hoped that an early definition of the terms of the act will be pronounced by the court of last resort; and it is desirable that this definition take cognizance of the purpose of the framers of the act and give the public the benefit of a liberal interpretation. Otherwise there is important work cut out for those whose desire it is to elevate our legal standards for drugs to the level of the best. A statute hampered by infirmities of phraseology and hindered by a lack of definiteness serves no worthy purpose well. There can scarce be conceived a purpose more laudable than that of safeguarding the ailing; then should the statute by which this purpose is sought to be attained be characterized by that solidity, that simplicity, that clarity which are the strength of the common law.

What of Pharmacopœial Revision?

What was the purpose of the recommendation made by the 1910 pharmacopœial convention to the general committee of revision, which reads: "It is recommended that the general committee of revision make public for comment and criticism an abstract of new descriptions and standards and of changes in descriptions and standards proposed, before final adoption"? Was it placation? Of course this recommendation, in common with the others included in the declaration of general principles to govern the revision, is a recommendation, nothing more. Its terms are not binding upon the committee if that body sees fit, as seems to be the case, not to be bound. Why, then, the approval of the recommendation?

We learn that the pharmacopœial trustees met in annual session at the home city of pharmacopœial revision, early in the past month. We are told that the sub-committee on scope made its final report. Has even a whisper transpired as to the limitations imposed by the sub-committee? None, at least loud enough to be heard at this distance. But, some one may say, scope is not a thing with which the recommendation is concerned; that has to do with descriptions and standards. Granted that, under a strict literal interpretation of the recommendation, what of the work done upon the tentative list of pharmacopœial articles submitted by the sub-committee on scope six months ago? And we are to have our new Pharmacopœia next year! So at least we have been promised by the powers that be. That leaves but little time for consideration to be given by critics to proposed changes or additions, to say nothing of time for the consideration of criticisms by the committee of revision.

So far as present indications are a guide, the committee of revision as a body and the members as individuals have shown a decided preference for silence with regard to their work. Unnecessary secrecy, it has been agreed by the members of the committee, is not becoming in connection with work of such a public character as is the revision of the legal

drug standards. We believe that the majority of those who are affected by the requirements of the Pharmacopœia will agree with the committee in this. But we cannot believe that many will subscribe to the opinion, seemingly indicated by the facts, that complete secrecy is necessary. There can be little, if any, question that universal participation is not conducive to good work of any particular sort. However, as the committee is bound in no way, not even by a recommendation, to heed criticism, let us have the light of the drug world upon the revision deliberations. This light cannot blind the eyes of the ardent workers, but it can do much to relieve the committee from future charges of star-chamber tactics.

The Reading and Discussion of Papers at the Meetings of State Associations.

Scarcely in any other way can the benefit of attendance at the meeting of a State pharmaceutical association be pointed out as thoroughly as by the presentation at the sittings of papers on subjects that confront the retail druggist in his vocation. True it is that one of the chief aims of the State organizations is the legislative uplifting and protecting of the calling of the members. Nevertheless, druggists are as a class apathetic to the endeavors to legislate for or against them that are always on foot; and so it is that of those who attend the meetings of the association of their State it is the minority that display an interest in the discussion of legislative matters. This is not because these discussions may not be fraught with interest for each and all druggists, but because the advantages or otherwise of the movement under consideration are not patent, and will not be to many of those affected until they become an established fact under the enforcement of the law or are lost because of half-hearted efforts put forth in behalf of the measure.

But the man who sees it set forth on the programme for the meeting that Charles Casserole will read a paper telling how he made profitable the selling of insecticides, spices, toilet wares, or what-not will at once recognize the advantage of learning Casserole's method, later to consider its application in his own business. The solution of the stamp-customer problem, a satisfactory delivery system, working formulas, publicity plans, and the odd hundreds of things that have a greater or less direct influence upon the bank balance, these are the matters in which no druggist can forget he has an interest; and these as the subjects of papers will bring members to the meetings and keep them at the sittings even while the picture man is endeavoring to group them as an advertisement for the headquarters hotel. It was in recognition of this truism that among the committees of State associations provision has been made in most cases for a committee on papers. The results of the efforts of this committee have not, however, always been encouraging to the members who have served thereon. Frequently it has been complained, now in this association, again in that, that, after the committee has induced some competent member to

devote his time to the preparation of a paper to be read before the association the author has cooled his heels while the sittings were occupied in the grinding of axes, the argument of differences of a more or less private nature, and the plain consumption of time by some outsider or insider with a verbose burden he would rid himself of—and the paper, representing time and thought and replete with benefit for all who might hear it, is at best “read by title.” Does the author hasten magnanimously to repeat his experiment?

In some associations they order these things differently; and here we turn instinctively to the Pennsylvania Pharmaceutical Association. No one can contend that the Keystone State law-makers are neglectful of affairs pharmacal; neither can it be shown that that State is far from the van in the matter of its pharmacy laws. The Pennsylvania association does not hold protracted meetings; but it does find time for the reading of papers, and the committee on papers, encouraged by the recognition extended to its efforts, is keen to merit additional praise. Ample evidence of this fact is given by the list of subjects submitted each year to the members at large, which list for 1911 is printed in the news pages of this issue. Other associations of far less numerical strength have, too, a goodly showing of papers at their annual gatherings. And they profit thereby. It behooves every State organization to foster in every way this feature of the interchange of beneficial ideas, for therein lies an important aid toward making the meetings more attractive.

To assist the State association in this direction the committee on commercial interests of the American Pharmaceutical association is by the by-law creating it instructed to “propose each year a subject for discussion at the meetings of the State associations.” This instruction seems to have fallen somewhat into disregard; but this year, under the chairmanship of F. M. Apple, of Philadelphia, Pa., the committee has submitted the following subject, one of much interest:

Does the general public appreciate why it should patronize pharmacists in return for the manifold benefits it enjoys as the result of unselfish efforts put forth by pharmacists to protect it from incompetents, impostors, adulterators and exploiters? If not, what means can you suggest whereby the public may be interested in the claims of the pharmacists for preferential consideration in commercial transactions?

With this as an impetus, we should have an awakening of interest in discussions of every-day drug-store problems which cannot but serve to make the meetings of the State associations attractive to greater numbers of the rank and file of the members and redound to the advantage of the organizations.

Fixing Responsibility for Error.

Hidden deep in a tangle of verbiage there is in one of the Turley bills now in the legislature of this State the commendable purpose to fix definitely the responsibility for error in the dispensing of prescribed medicaments. The measure is a good example of attempts at pharmacal law-making by extra-pharmacal inter-

ests. It would in practice tend to defeat rather than accomplish the purpose for which it is evidently intended because it would increase the chance for error through the copying and recopying of prescriptions that it requires. There is no need for the provision requiring semi-annual reports as to the whereabouts of registered pharmacists, as the pharmacy law already accomplishes the object sought by requiring annual reports—and the mobile, irresponsible clerk is as little liable to stay six months in one place as he is to stay a year. Another superfluous provision of the Turley bill is the duplication of the pharmacy law's requirement that all prescriptions be kept on file for a term of years. To give this, that and the other person entrance to the druggist's prescription file, as this bill would if it became a law, would be to open the way to fraud and persecution and to demoralize the prescription business. These files are answerable to subpoena; they should be sacred from the prowling muck-raker and scandal-monger.

One thing stands out clear in the midst of the mud-dle of repetition and verbosity; that is the provision that the person filling a prescription shall write his name and the date on the prescription if he is a registered pharmacist and that the supervising pharmacist shall sign prescriptions dispensed by unlicensed employees. So far so good; but the attempt is made to make the proprietor of a drug store criminally responsible for the errors of the unlicensed employee. Seemingly the metropolitan daily newspaper at whose instigation the bill was drafted, the attorneys who are the alleged constructors of the bill, and the legislator whose name it bears overlooked the point that criminal responsibility is a personal thing. There also seems to have been a minimum of consideration bestowed upon the fact that the determining of error is a question for the jury and the burden of proof rests with the plaintiff. It is a difficult matter to show to the satisfaction of a jury that injury was done by a specified drug, that that drug was present in the medicine alleged to have been wrongly compounded, that it was not put there after the container had gone beyond the control of the dispenser, and that the medicine was compounded by the defendant. It would help some if the identity of the compounder were assured. And for this purpose the pharmacy law could easily be amended so as to require the initials and license number of the compounder or the supervisor to be written with the date upon the prescription or in a book kept for the purpose. A dozen or so words, and the thing is done.

We submit this suggestion to the New York State Pharmaceutical Association; and we recommend its consideration to the sponsors of the unwieldy Turley bill.

CERTAIN MILK FERMENT TABLETS having been found by Metchnikoff to contain injurious bacilli, and the keeping of these ferments in tablet form being regarded by him as unwise, he proposes that the general government take charge of the matter, citing its supervision of the serum industry as a precedent. Some of the milk-souring tablets on the market he believes do more harm than good.

BUSINESS METHODS often are the main factor in establishing the popularity of a preparation. It frequently is the case that the druggist who had an equal opportunity with the proprietor of a rapid seller, but who was lacking in business methods, tries to profit at the expense of his more business-like competitor by endeavoring to sell some "just-as-good" preparation when he receives calls for the popular article. This is not substitution, as many of the proprietors of the popular remedies shout, but it is poor business—poor because it alienates customers, and poor because it shows that the druggist who practices it is lacking in the enterprise necessary to launch a preparation of his own and create a demand for it. We are prompted to make these observations by a letter received from a correspondent whose request for a formula for a certain kind of shampooing liquid was answered in a recent issue of the CIRCULAR. Some time after the publication of the formula in question, the correspondent wrote us that he had made up a five-gallon batch of the liquid, samples of which he had distributed among his customers; "and," he added, "I have had nothing but good reports from the same." Parenthetically it may be mentioned that although the formula and directions for making just the kind of preparation requested were worked out in our own laboratory, the work involving the making of numerous original experiments, they were printed, along with other matter from the CIRCULAR, in another drug journal with no semblance of acknowledgment of the source of any of them. With the enterprise which he is exhibiting in this matter, and the courtesy which he shows to be a part of his nature by expressing his thanks to us for the aid we have rendered him, the druggist who is marketing the special shampooing liquid will doubtless soon establish it as a popular favorite in his vicinity. The man whose business methods result in the popularization of a specialty is in a better position with respect to the trade in that article than is he who tries to detract from the fame of the specialty for obviously selfish reasons. The time for the druggist to suggest to people that they try one of *his* specialties is before they have asked him for some one's else, not afterward. He should do his suggesting in such way that his customers will specify his special make of an article when they come to buy. For a druggist to wait until a shopper asks for something else and then try to induce him or her to buy an "own-make" preparation, is to put himself to a decided disadvantage in the estimation of his public, and not infrequently by so doing he drives customers away from his store. By what we here say we do not mean to advocate secrecy in pharmacy—and much less in medicine—or to intimate that it is not the druggist's duty to warn people of the harmfulness of any preparation for which they may ask him.

WHAT IS A SPORT? We are not now talking about games, recreations or fun; nor have in mind the man who is a "good loser" or the one whose large diamond and noisy clothes proclaim that he is not the kind that goes into games in which he stands a chance of losing. The kind of sport we want to call to our aid now is thus described in the dictionary: "An animal or plant, or one of its parts, that exhibits or is the result of sudden and spontaneous variation from the normal type." And yet we are not thinking exactly biologically, either, but of a turn of mind, the human, the editorial, mind. Maybe if we are considered the

"animal," and our mind as "one of its parts," the definition of a sport may be stretched to apply to the sudden variation from normal which we are about to manifest. To get down to the point: It is a fact well known to all who read the papers that anonymous communications to a paper are filed in the editor's waste basket. So far as we know, there has never been a case recorded of a periodical soliciting anonymous communications. Such a thing seems preposterous, seems to break over all newspaper rules and traditions. It frightens the editor who thinks of it to such an extent that he hardly dares to set down the few words which will shatter long-cherished precedents. But time and space are valuable, so we must stop consuming them and say what we felt that we should like to say when we began to write this paragraph. To do so is like taking a dose of castor oil, or a cold shower, or something like that: one fights off the fateful moment as long as he can, and then shuts his eyes, holds his breath and——. Well, here goes: We want as many of our readers as can do so to favor us with anonymous letters about the CIRCULAR. We want them to tell us what they think of it, what its good features are, what its short-comings. We solicit candid expressions of opinion as to what, if anything, it should drop, and what take up. If anyone has a grievance against the CIRCULAR, which he is unwilling to state over his own name, now is a chance for him to rid his mind of it and be sure of a respectful hearing, no matter what its nature. We do not object to complimentary letters; they warm the cockles of our heart in a way which we feel some writers do not appreciate. We receive many such and thank their writers for them. But it does a man or a paper good to hear some adverse comments now and then. We have asked for candid expressions before, but not anonymous ones, and received candied ones instead. It seems that either our friends thought we were fishing for compliments, or else nobody had any adverse criticism to make, but it may have been that there were disgruntled ones who did not wish to write what they had on their minds and sign the statement. We have stood a lot and are in better shape now than ever; we believe we can stand a lot more. Let our readers put us to the test, and if they write in good faith, although anonymously, we hope to be in better shape after they are through with us than we are now. If we did not have this much confidence in ourselves we should not give this evidence of our sportiveness.

STAMP-TAXING OF NOSTRUMS and other ready-made medicines, as well as remedies, and correctives for dermatologic blemishes, perfumes and dentifrices, for purposes of revenue is being considered by congress. The indications are that the measure which embodies this proposition will be allowed to sleep through the tariff activities, and that, should reciprocal trade arrangements be decided upon, the stamp-tax will be enacted as a means of replenishing Uncle Sam's coffers.

DRUG CLERKS may be divided into three classes—first, those who have not "made good" in the position they hold and are always on the lookout for better jobs; second, those who have "made good" in the positions they hold, and are "turning down" offers of other jobs; third, all the rest.

Building Up a Business in Photographic Goods.

BY BILLEE BARRIE.

It all had its beginning when T. Wymbleton Clarke and I were conversing through a rainy April evening with our chairs tilted back against the stock closet doors and the interruptions of trade few and far between. T. Wymbleton was proprietor, editor and star reporter of the *Jeffersonian Standard*, a man of many parts and boundless horizon. He was holding forth on a scheme for metropolitanizing this four-page weekly. My part, as was usual in these frequent conversations, was in the second act after T. Wymbleton had talked himself out. Meanwhile I waited, and with a purpose, for I glimpsed an opportunity, in the theorized metamorphosis, to do a bit of expanding myself.

When the subsequent silence had become portentous, I hazarded the opinion that a few well-selected illustrations of local color would help the *Standard* toward the "yellow" stage. T. Wymbleton agreed, all too readily I thought; then he put the damper on by adding: "A few out of Photographer Lewis' show case, I reckon."

Here was my opportunity. Easily and deliberately, with neither undue emphasis nor the air of one who has hit upon a sure thing, I told the man of many parts how in exchange for more advertising space allotted to me he could add a bang-up focal-plane-shuttered rapid-fire picture-taker to his staff. Money seldom passed between us; cigars, dentifrices, shaving supplies and advertising were our legal tender. Warming up I continued to set forth how he should get the "boiler-plate" syndicate to omit the Narragansett sea-serpent tale and the story of the Winsted wire-walking chicken from the "patent" fourth page, leaving a hole wherein he could depict "Stump" Daly, the local baseball star, in the act of stealing third base; "Smoke" Baker with his record trout; the local fire-fighters in action; Sam Jackson's mule running away, or any one of the thousand daily occurrences that can be told more forcibly in a picture than by a pen—I ran pretty close to the rocks then.

We talked over all the necessary incidentals, and I wrote out an order for a \$125 outfit. Then I started to boom things photographic in my camera-bought advertising space.

I knew, because I had seen them, that many cameras had been received as Christmas presents a few months before, although few of these were in working evidence at the time of which I tell. Still I had hopes in the awakening out-of-doors—and in my publicity scheme. Having more influence upon the latter I devoted myself to its case. In the newspaper space I told of the lasting joy of recorded scenes and occasions of delight and the pleasures of home portraiture; I pointed out the ease with which pleasing and also profitable results could be secured; and I offered to give free instructions in every phase of the subject and to aid in difficulties—there were times when I had to take a case under advisement and reserve my decision while I read up on the particular phase. The combinations of these three themes are many: I used fifteen or eighteen pieces of copy. It is difficult for me to say what arguments were the most convincing, each had its quota of recruits.

Of course every cameraist who availed himself of the "help bureau" was duly impressed with the fact

that I had a supply depot for films, plates, papers and chemicals and that he might use my dark room free. Through the "help bureau" and otherwise I secured the names and addresses of a large number of photographers in every class of proficiency. Every time I saw a person with a camera I busied myself to learn from acquaintances who he was and where he lived. Literature supplied by manufacturers, sample prints and reminders of various sorts were distributed regularly through the mailing list thus compiled.

Clarke got so interested in photography through getting pictures for the *Standard* that he soon became a most enthusiastic devotee. Between us we did much to popularize picture-making by having special articles and descriptions of picturesque little trips in his paper at frequent intervals. Another means I found useful toward making photographers was to address the Y. M. C. A. and the civic league on the development of the photographic art and the chemistry of photography, performing experiments to illustrate the influence of light on silver salts and the action of developers, fixing baths, reducers, toners, etc. I also found it a good plan to take pictures of parades, store decorations, evening parties and other gatherings and to show them to participants who were invited to call at the store.

Throughout the country adjacent to town sign-boards were distributed. Some on trees along the creek proclaimed the indisputable evidence of photographs of the catch of fish. At the favorite picnicing grounds were signs telling of the added enjoyment a camera would afford and others setting forth the satisfaction to be had by using supplies purchased at my store.

Perhaps the riskiest thing I undertook was a series of photographic contests. Much tact is required in carrying on a contest, and the chances for a happy ending are not of the best. However, the series was quite satisfactory. The first contest had to do with pictures of wild animal life in its natural state, and brought forth many fine photographs. I was fortunate in securing the services as judge of the professor of natural history at the normal school in the neighboring city. Wild flowers were the subject of the second contest which was judged by the botanical and art instructors from the school. By far the most popular contest was the one in home portraiture. Editor Clarke and the art instructor had their hands full to reach a decision.

At the beginning of each contest an appropriate window display was used at the store. This showed a wax-figure boy or girl with a camera photographing a stuffed bird on a nest, a clump of daisies, or a wax figure dressed to represent grandmother, each group in a suitable setting. Displays of cameras and supplies were frequently made. One resultful trim put on early in June consisted of a heap of carefully disarranged traveling bags, rugs, hammocks, time-table folders, guide books, tennis racquets, and baseball supplies, with a woman gowned for traveling standing by with parasol and camera in a case. Due emphasis was given on a large card to the necessity of a camera toward a successful vacation.

The interest I had aroused during the summer was not permitted to lag during the cold weather, and photography in this town is now an all-year-round pastime. Not being the only dealer in photographic supplies here, I did not get all the returns from my efforts, but I am satisfied that the scheme of T. Wym-

bleton Clarke was not fruitless in my application of it. The *Standard* has no three-inch scare heads yet, but its local illustrations have caught the public fancy and adorn the scrap-books of many new subscribers.

Woes of a New Proprietor.*

BY A CONFIDENTIAL FRIEND.

George had not been owner of the drug store a week before he discovered several things. One was that he had to be at the store more hours than when he was clerking, and this was a sort of surprise to him. The two clerks of the store had their regular time arranged all right, just when they were to come and go, according to the system introduced by the former proprietor of the store. It was not many days before George became aware of the fact that he was putting in more time than either of the clerks. The three had regular shifts, arranged so that two of them would be at the store all the time. George proceeded to even up matters so that each would have equal time to serve, and trouble began at once. Therefore he decided to let the time schedule remain as it had been, at least until he became better acquainted with the management of the store and independent enough to discharge and hire help.

Another little surprise in store for him was the fact that the two clerks were in the habit of smoking quite a number of cigars "on the house" every day. He also saw that the two clerks were accustomed to be free with his chewing gum, soda water, ice cream and candy. He saw the clerks give little lots of this stuff to girl friends. His clerks told him that this was one way they held the business of the grown folks. To George it looked like destroying the profits on a considerable proportion of the day's sales to be so liberal with his stock. He received another shock one day when he went to the cash drawer to get money to pay a bill, and found that several dollars were gone and in their place was a sort of "I O U" paper signed by one of the clerks. The clerk explained that he was paying his wages a few days in advance, as he needed the money. He said that the other "boss" never objected. George listened to the talk of a drummer who sold cash registers who happened along soon after, and had a cash registering machine installed in his store, much to the disgust of the clerks who at first made all kinds of fun and comments on the new-fangled thing. But the clerks used the cash register, and from that time on the receipts appeared to be a little better.

George put a stop to the illegitimate sales of liquor which had been a part of the trade of the store, and by doing so lost some profitable customers. From the very beginning of his administration he seemed to do the very things that made him lose good patrons, and new customers were scarce.

Near George's store there were a number of workmen's families and these families often sent their children to the store to get ice cream. Invariably the children brought utensils that would hold a full quart of ice cream and often more, and the mothers would provide the children with the price for one pint of

cream (or less) and the child would ask for that amount, taking it for granted that George would be liberal and fill the pitcher or dish, regardless of the capacity of the same. As George was accustomed to giving pints for pints and not quarts for pints, he offended many a child and mother, unconsciously, and lost some good business before his clerks told him that he must be prepared to lose money in the local pitcher trade for cream, in order to retain the custom of the people for goods on which there was a profit. But in the meantime the children had transferred their trade to the confectionery store down the block.

As weeks passed George learned more and more. His store was on a corner where accidents were frequent, due to the recklessness of automobile drivers and a grade which got slippery in wet weather. Then the cars hurt someone at that corner every now and then; and during the night hours the roughs of the vicinity had squabbles near by. Consequently George rendered a good deal of "first aid to the injured." In cases in which the subject had been injured by the street railway, he had only to send the bill for plaster and other articles to the car company, and receive his pay in due time. A few of the automobilists also paid well for the care of those whom they injured. But the victims of the fighting gangs who were carried bodily into his store for treatment always acted as if someone else were responsible for the supplies used. Often a fictitious name and address were given by the person who had been patched up. George claimed that he really lost money in this way on the care of the injured, but said that he did not see how he could refuse to aid anyone who was suffering. Some people were really generous. One woman who got hurt near by, gave the clerks a dollar each, and impressed upon them that the money was for them, and not for George, although he had furnished the medicine used and was the man who paid the rent of the store. The two clerks thought this was a fine joke on George, and all three laughed it off, but George wondered where he came in on the deal. So George made up his mind to play the part of the clerk next time. He did so. A prosperous appearing man had a fit near the store. George devoted his best attention to him. When it was all over and George had brushed the man's clothes and smoothed his tall hat, the stranger gave him ten cents and walked out. Next day, however, he stopped and asked for the proprietor, so as to get his bill for the treatment he had received. He thought it a good joke when George proved to be the man, and in the merriment went away without making any further payment.

In fact, the jokes all seemed to be on George. It was a great laughing game until the end of the month, when he took stock. Then he found that his net loss for the month was just \$40. But he was not discouraged. He determined to fight it out.

Methylene Blue as an Indicator.

Sinnat (*Analyst*.) finds that when methylene blue is added to dilute solutions of iodine in potassium iodide, a yellowish-green color is produced which finally changes to a clear yellowish-brown. He proposes the blue as a substitute for starch in iodometric titrations. In strong solutions a precipitate of an iodo-compound of the methylene blue is obtained, but in the dilute form as an indicator the color changes are as described.

*In the *CIRCULAR* for April, page 184, a friend of George's tells how George bought a drug store from a sharp fellow who "gold-bricked" him very neatly. The friend said in concluding his story that George had lots of other harrowing experiences which were worth relating. Some of them are told in this article.—Editor THE DRUGGISTS CIRCULAR.

Efficient Medicaments in Palatable Form.*

By JACOB DINER.

Prof. A. B. Lyons, a member of the U. S. P. revision committee, has justly said that physicians themselves should be the ones to select the combinations they desire to prescribe, as they did in the beginning in constructing the Pharmacopœia. Not so many years ago the patient was satisfied with the medication given by the physician when such medication accomplished its primary object, that of curing or alleviating the disease. Pleasant taste and elegant appearance of the medicine played no part; in fact popular opinion had it that the more disagreeable the medicine tasted the greater was its efficiency. And quantity was by no means a matter of secondary consideration; the one pound mixture of herbs to be infused or decocted by the patient, the pint of medicine to be taken in wineglassful doses, the teaspoonful or tablespoonful of powder to be taken dry on the tongue, still linger in the memory of we pharmacists who have dispensed them; and the taste of the medicines probably still sends stimuli over the gustatory or olfactory nerves of the "patient" sufferer who had to take them. Zittelmann's decoction in lots of twelve or more 16-ounce bottles dispensed at one time is not such a thing of the past as to be entirely forgotten by many present here to-night.

Advances in chemistry, pharmacy and pharmacognosy have given us the active principles, and along with development in other lines—or should we say with Dr. Walsh: Along with the return to ancient accomplishments and perfection—public taste has undergone a change. With the bath-tub, the telephone, electricity and the many other advantages of modern times the demands of the public have risen gradually and yesterday's luxuries have become to-day's necessities.

It was only natural then that the taste, literally, in medicine should change; and the chemist stood ready to supply the demand. The ever-busy physician could hardly be expected to devote his time to experiments with a view to improving the taste of his remedies, but, recognizing the demand, and the justice of the demand, of the patient for more palatable remedies, he readily accepted the suggestions of the chemist and modified his prescriptions accordingly. Pretty soon the chemist realized the commercial possibilities of palatable medication and used the affable and accommodating "busy practitioner" for the exploitation of his remedies by getting him to prescribe them in original containers—and we have the arrival of our modern proprietary medicine.

In the meantime the physician had become so accustomed to letting the chemist do his taste-correcting for him that he finally let his thinking and prescribing be done for him in the same wholesale manner, believing himself still too busy to think for himself. The result is not only a market flooded with proprietary and semi-proprietary medicines, but, still more serious, an era of self-medication which threatens to make the busy practitioner a thing of the past.

Now it is true that it is not always easy for the physician to present his remedies in palatable form, and the bogey of incompatibility so deters him that

he is afraid to combine two remedial agents lest he run a-foul of incompatibles. Yet the mastering of a few fundamental principles of incompatibility, and familiarity with a few standard adjuvants and vehicles will enable almost any physician to prescribe active and at the same time compatible and palatable remedies. It is not within the scope of my paper to enter upon the subject of incompatibles, so I will restrict myself to palatability only, mentioning a few of the most-generally used drugs and chemicals and a few general methods of their palatable presentation.

Perhaps one of the most frequently used remedial agents is quinine. Children will take this drug quite readily in sweetened or even unsweetened milk. Should another method be desired it may be given in aromatic syrup of yerba santa or in chocolate syrup. Some physicians prefer to give quinine in solution. These may overcome the bitterness of such solutions in the following manner: Prescribe the required amount of quinine sulphate dissolved in diluted sulphuric acid so that five drops represent the desired dose. Call this mixture No. 1. And order a few ounces of compound syrup of glycyrrhiza as mixture No. 2, directing the parent or attendant to put five drops of mixture No. 1 into a teaspoonful of No. 2 immediately before giving. Thus the acid has not time to precipitate the glycyrrhizin and the child gets a solution of quinine in a fairly palatable form. For adults the same vehicle may be used and in addition to this we have the wafer, the hard and soft elastic capsules and freshly made tablets.

In considering palatability the bromides require particular thought. To mask the rather unpleasant taste of these salts a quantity of solution of citric acid added to any of the numerous syrups of the Pharmacopœia or National Formulary will be found very useful. Strictly fresh pineapple juice or the various soda-water syrups made from fresh fruit are pleasant vehicles for the bromides. The iodides and the mercurials (the soluble ones) are best administered in compound syrup of asarum, the small amount of ipecac present counteracting the untoward effect on the stomach. The sickening taste of the salicylates can be counteracted by dissolving them in elixir of gentian or by the addition of a small quantity of tincture of gentian to the aqueous solution.

For the palatable presentation of castor oil and cod liver oil, there is no better extemporaneous method than emulsification with acacia and disguising the taste and odor with any of the essential oils of the U. S. P. Since the therapeutic value of this class of remedies is markedly increased by their being fresh, a freshly made emulsion is of course far superior to any ready-made preparation which has stood on the shelves of the manufacturer, jobber and retailer for who knows how long before reaching the patient.

Another palatable and elegant form of medication is afforded by the effervescent salts. Almost any pharmacist is in a position to prepare them at very short notice, giving the physician his choice of medication rather than the conglomeration "discovered" by some "chemical" company of unknown standing and questionable reliability.

A number of elixirs and syrups of pleasant taste and elegant appearance are at the disposal of the prescriber and without going into detail concerning their composition I shall only state that they readily lend themselves as pleasant aids to the prescriber who has time and intelligence to think.

*Read at a meeting of the New York branch of the American Pharmaceutical Association with the Medical Society of the County of New York, and contributed by the author.

I can not close without pointing out two things of importance to the medical men: First, the proprietary medicine, put up in fancy bottles with full directions for the patient and physician, may or may not contain the active ingredients claimed in the alluring literature accompanying the bottle; more often it does not; and the formulas are changed with the fluctuation of the market or the whim of the manufacturer without the ceremony of notifying the prescriber. Your prescription compounded by a reliable pharmacist of whose standing you can inform yourself readily *does* contain what you order, and is not "subject to change without notice." Second, any pharmacist will be pleased to assist you in formulating a palatable remedy containing the active ingredients required for the individual case. It is not my intention, gentlemen, to teach you how to prescribe, nor do I consider myself capable of teaching you. I merely want to point out a few methods of palatable medication which have come to my knowledge as a practicing pharmacist. Let us not believe that one or even half a dozen meetings of this kind will revolutionize the prescribing of this country, but let us keep at it, unmindful of the indifferent and the scoffer, remembering Longfellow's words:

The heights by great men reached and kept
Were not attained by sudden flight,
But they, while their companions slept,
Were toiling upward in the night.

Petrox Preparations.

In a paper presented at the March pharmaceutical meeting of the Philadelphia College of Pharmacy G. M. Beringer and G. M. Beringer, Jr., reviewed comprehensively the use of petrolatum-oleic acid combinations as absorbable yet protective vehicles for external medication. The authors also recounted some experimentation toward the improvement of the National Formulary preparations of this class and amplification of their uses in compound medicaments for external use.

Out of this experimentation had come the appended formulas which were reported in the paper. The methods of manipulation set forth in connection with the respective formulas are those which the authors found to be essential to the success of the processes. It is quite important that the directions be followed carefully, otherwise the results will be unsatisfactory.

Solid Petrox.

Paraffin	37 grammes.
Liquid petrolatum.....	20 grammes.
Oleic acid.....	30 grammes.
Oil of lavender flowers.....	3 grammes.
Alcohol	5 grammes.
Stronger ammonia water.....	5 grammes.

Melt the paraffin with the liquid petrolatum, on a water-bath; add the oleic acid, and transfer the mixture at once to a warm mortar. Immediately add the oil of lavender flowers and the alcohol and stronger ammonia water mixed, and stir continuously until cool.

This yields a pale-yellow ointment, and, if the above directions are carefully followed, the resulting product is smooth and creamy, very suitable as an ointment base. It is essential that the mortar be warmed so as to insure a gradual cooling, and that the stirring be continuous, otherwise the mass will be uneven and granular.

Liquid Petrox.

Liquid petrolatum.....	50 grammes.
Oleic acid.....	28 grammes.
Oil of lavender flowers.....	2 grammes.
Stronger ammonia water.....	5 grammes.
Alcohol	15 grammes.

Mix the liquid petrolatum, oleic acid and oil of lavender flowers, in a flask, then add the alcohol and finally the stronger ammonia water, and agitate thoroughly until clear, warming the mixture slightly, on a water-bath if necessary. Slight warming may be required in cold weather, to promote the saponification.

A yellowish-brown liquid, soluble in ether, chloroform, benzoin, and acetone, produces an emulsion on agitation with twice its volume of water. The proportions of the ingredients in this formula do not differ very greatly from those in the present N. F. formula. The product forms a permanent emulsion with water. The formula of the British Pharmaceutical Codex yields a preparation that will not even form a good temporary emulsion with water but separates almost immediately.

Camphor and Chloroform Petrox.

Chloroform	25 grammes.
Camphor	25 grammes.
Liquid petrox	50 grammes.

Dissolve the camphor in the chloroform; then add the liquid petrox.

Cade Petrox.

Oil of cade.....	25 grammes.
Liquid petrox.....	75 grammes.

Mix them.

Creosote Petrox.

Creosote	20 grammes.
Oleic acid.....	5 grammes.
Liquid petrox.....	75 grammes.

Mix them.

The B. P. C. directs only 5 per cent. of creosote, yet calls for 20 per cent. of guaiacol in the formula with the latter medication. It was deemed advisable to make our formulas correspond with the usage of American practice. If 5 per cent. of creosote be all that is required the addition of oleic acid will not be necessary.

Eucalyptol Petrox.

Eucalyptol	20 grammes.
Liquid petrox.....	20 grammes.

Mix them.

Guaiacol Petrox.

Guaiacol	20 grammes.
Oleic acid.....	5 grammes.
Liquid petrox.....	75 grammes.

Mix them.

The creosote, guaiacol and eucalyptol petroxes all darken considerably on keeping; they can readily be prepared as wanted. The darkening is probably due to traces of iron in the oleic acid and is not serious, as it can not affect the medicinal action.

Mercury Petrox.

Mercury	30 grammes.
Hydrous wool-fat.....	15 grammes.
Solid petrox.....	55 grammes.

Triturate the mercury with the hydrous wool-fat until it is distributed and globules are no longer visible when examined with a lens magnifying ten diameters; then add the solid petrox and mix thoroughly.

The percentage of mercury has been reduced to 30 per cent., which, in a base so readily absorbed, is believed to be ample to produce salivation.

Ichthyol Petrox.

Ichthyol	10 grammes.
Oleic acid.....	5 grammes.
Liquid petrox.....	85 grammes.

Mix them.

Iodine Petrox, 10 per cent.

Iodine	10 grammes.
Oleic acid.....	40 grammes.
Alcohol	20 grammes.
Liquid petrolatum.....	23 grammes.
Oil of lavender flowers.....	2 grammes.
Stronger ammonia water.....	5 grammes.

Reduce the iodine to a coarse powder by triturating in a glass mortar and transfer it to a suitable flask; add the alcohol and then the oleic acid, and agitate the contents of the flask until the iodine is dissolved; add the oil of lavender flowers and the liquid petrolatum, and mix the liquids, and finally add the stronger water of ammonia, shaking the mixture until a clear solution results.

It was found impossible to prepare a 10 per cent. iodine preparation by simple solution in the liquid petrox. By improper mixing there results another difficulty, namely, the separation of the iodine as a salt, and this is a diffi-

culty that has not been overcome by some of the manufacturers of the proprietary preparations. The writers have examined several bottles of one manufacture that is greatly prescribed, in which appeared quite heavy crystalline sediments that proved to be ammonium iodide. A sample made by the proposed formula has now been kept for more than five months without sign of any separation of a crystalline deposit.

Iodine Petrox, 5 per cent.

Iodine petrox..... 50 grammes.
Liquid petrox..... 50 grammes.
Mix them.

Alternative formula:

Iodine, in coarse powder..... 5 grammes.
Liquid petrox..... 95 grammes.

Dissolve the iodine by agitation with the liquid petrox in a stoppered bottle.

An assay process should be provided for the iodine petroxes. The *Ergänzungsbuch zum Deutschen Arzneibuch* gives a method of assay which should, however, be thoroughly tried by a competent chemist before being adopted in the N. F.

Iodoform Petrox.

Iodoform 3 grammes.
Acetone 20 grammes.
Oleic acid 10 grammes.
Eucalyptol 3 grammes.
Liquid petrox..... 64 grammes.

Dissolve the iodoform in the acetone, add the eucalyptol, oleic acid and the liquid petrox, and mix the ingredients.

Despite the statements in the books, 3 per cent. of iodoform can not be dissolved in liquid petrox alone, even if heat be used; only a portion will dissolve and this largely crystallizes out on cooling. Consequently, one of the solvents for iodoform must be made use of and for this purpose we selected acetone. The disagreeable odor of iodoform is modified and largely overcome by the combination of eucalyptol and lavender.

Menthol Petrox.

Menthol 5 grammes.
Liquid petrox..... 95 grammes.
Dissolve the menthol in the liquid petrox by agitation.

Methyl Salicylate Petrox.

Methyl salicylate..... 20 grammes.
Liquid petrox..... 80 grammes.
Mix them.

Naphthol Petrox.

Betanaphthol 10 grammes.
Liquid petrox..... 90 grammes.

Dissolve the betanaphthol in the liquid petrox by agitation.

Phenol Petrox.

Phenol 5 grammes.
Liquid petrox..... 95 grammes.

Dissolve the phenol in the liquid petrox by agitation in a stoppered bottle.

Tar Petrox.

Oil of tar..... 25 grammes.
Liquid petrox..... 75 grammes.
Mix them.

Oil of tar makes a clear solution and for this use it is certainly to be preferred to tar; hence we have departed from the formulas of the foreign formularies which direct tar.

Salicylated Petrox.

Salicylic acid..... 10 grammes.
Oleic acid..... 5 grammes.
Liquid petrox..... 85 grammes.

Dissolve the salicylic acid in the oleic acid and liquid petrox.

Campho-Phenic Petrox.

Phenol 12.5 grammes.
Camphor, in powder..... 37.5 grammes.
Liquid petrox..... 50.0 grammes.

Mix the camphor and the phenol and when the mixture has liquefied add the liquid petrox and mix thoroughly.

Sulphur Petrox.

Sublimed sulphur..... 3 grammes.
Linseed oil..... 37 grammes.
Oleic acid..... 30 grammes.
Liquid petrox..... sufficient to make 100 grammes.

Heat the sublimed sulphur and the linseed oil in a flask, on a sand-bath, until the sulphur is dissolved; then allow to cool and add the oleic acid and sufficient liquid petrox to make the product weigh 100 grammes, warming the mixture slightly if necessary to obtain a clear liquid.

A dark-brown, thick, oleaginous liquid possessing a very foul odor. It is not liable that this will be used per se, but it can be diluted and serves for the preparation of the succeeding formula.

Compound Sulphur Petrox.

Sulphur petrox..... 10.0 grammes.
Oil of cade..... 10.0 grammes.
Thymol 0.3 gramme.
Eucalyptol 3.0 grammes.
Oil of turpentine..... 30.0 grammes.
Liquid petrox, sufficient to make..... 100.0 grammes.

Mix the thymol and the eucalyptol, add the oils and then the sulphur petrox, and finally sufficient liquid petrox to make the product weigh 100 grammes.

Venice Turpentine Petrox.

Venice turpentine..... 20 grammes.
Liquid petrox..... 80 grammes.
Mix them.

A Get-Together Recommendation as Part of the Official Preparations Propaganda.

The present depressed and unremunerative condition of pharmacy as a business does not, perhaps, fall strictly within the scope of this association. Yet, in view of the fact that one of the most prominent causes of that depression is strictly pharmaceutical, it may not be amiss to allude to it in this paper. I refer to the large and increasing demand for proprietary medicines, which filches from the pharmacist so large a portion of his legitimate profits. Many of these preparations, it is true, reach the consumer through the pharmacist; yet, when we look around upon our shelves at the multiplicity of these medicines we are compelled to carry in stock to meet business demands, and of which many are practically unsalable—the question of profit in handling the class of preparations referred to becomes a problem difficult to figure out. At the Hagerstown meeting of the Maryland State Pharmaceutical Association, some preambles and a resolution were passed, worded thus:

Whereas, The rapid multiplication of that class of remedies known under the general head of proprietary medicines works serious evils to legitimate pharmacy; and

Whereas, The elegant dilutions presented to the public in the shape of elixirs and many other popular forms are very costly to the consumers, and frequently of doubtful value; and

Whereas, The Pharmacopoeia furnishes ample choice of remedies to enable the physician to combat disease;

Therefore, Be it Resolved, That the Maryland State Pharmaceutical Association most earnestly request its members to use their best efforts to induce physicians, when prescribing, to give preference to official remedies.

This resolution is a step in the right direction, but possibly does not go far enough. It is by the aid and countenance of physicians that this evil can be controlled and lessened. Physicians, if properly approached, will ever be found ready to aid and foster with their best efforts all measures in the interest of pharmacy that will inure to public good. If the intent of the resolution, amplified and endorsed by this association, and possibly supplemented by the conjoint action of the various State pharmaceutical associations invoked by the direct appeal of this association, were put into proper shape and brought to the attention of physicians by direct communication officially with the many medical associations throughout our land, I believe it would go far to correct the evil. The resolution should recognize the fact that the many preparations now in popular use that may be grouped under the head of so-called "elegant pharmacy," have become such fixtures in our business that it will not do to ignore them, and embrace in its request that physicians confine their prescriptions to official, and such non-secret, non-proprietary remedies as may be endorsed by, and the formula published from time to time under the sanction of this association.

The foregoing reads as if it might be a portion of a paper presented at a recent get-together meeting of physicians and pharmacists, but it isn't; it is an extract from the presidential address of Joseph Roberts, delivered before the American Pharmaceutical Association in 1886—just twenty-five years ago.

A Lubricating Oil as a Carrier of Infection.

Huffman reports (*N. Y. Med. Journ.*) an epidemic of a skin disease, impetigo contagiosa, occurring in a machine shop, the carrier being a lubricating oil. As long as the patients were treated by their several physicians a variety of diagnoses were made without the cause of the disease being discovered. Eventually quite a number of machinists working in the same department complained that the lubricating oil they were using caused a rash where it came in contact with the skin. The oil was examined chemically without result; organic impurities were not looked for as from having been heated in making (from lard) it was supposed to be sterile. The men complaining were ordered to report for examination and treatment. Quite a number had complained, but only six reported. Of these, five presented inflamed papules and pustules distributed irregularly over the upper extremities, face and neck, wherever the oil might reach the exposed skin. The sixth man did not have a rash, but said that he had had a "felon" on his thumb which was entirely healed. Upon questioning him, he stated that he had worked at a screw machine supplied by the same oil pump as that which supplied oil to the machines and lathes of the other five men; that he had worked in the oil while the abscess on his thumb was discharging pus; that this occurred just before the rash appeared upon his fellow workmen; that he had not had any rash but thought perhaps that his abscess might have been due to the oil. This verbal evidence needed only to be supplemented with knowledge of the lubricating system of these six machines to point clearly to the fact that the pyogenic germs discharged into the oil from the abscess on the finger of this man had been the cause of the pustular rash on the other five. At the factory it was found that the waste oil of the six machines at which these men had worked drained to a common reservoir from which after being strained it was again pumped to the same six machines—thus making successive cycles. The identical oil which had been at one time in contact with the abscess had been mixed with all the oil in the reservoir and thus diluted had been splashed upon the arms and faces of the machinists. The oil was destroyed and no new cases developed.

An Overlooked Supply of Rubber.

The *India Rubber World* in discussing the position of the rubber market remarks: "There is, however, another source of supply that crude rubber men are likely to overlook, yet one that will wonderfully help in case of a short crop or too high a range of prices on the Amazon. The world, not the tropical world, but the temperate zone, possesses several million pounds of Para rubber that will be shortly offered to the trade at from 50 to 70 cents a pound. There will be a steady offering of it for years to come and the supply will increase. Its source is the worn-out motor tire that goes to the reclaimer and is thoroughly 'recovered.' For five years past the tire manufacturers have been turning out tons of tires and paying a high price for raw material. This great accumulation of rubber is just beginning to come back, and is of a grade that can be used in almost any line of work."

If we do not purge pharmacy of its law violators, we have no right to kick when we are given undesirable publicity by their acts.—*Pacific Drug Review*.

Some New Canadian Preparations.

The following are some of the additions to the Canadian Formulary:

Syrup of Wild Cherry with Cod Liver Oil and Malt Extract.

Cod liver oil.....	250.0 c.c. (mils).
Extract of malt.....	250.0 c.c. (mils).
Glycerin	50.0 c.c. (mils).
Powdered acacia.....	50.0 grammes.
Oil of peppermint.....	1.5 c.c. (mils).
Syrup of wild cherry, sufficient to make.....	1,000.0 c.c. (mils).

Triturate the oils with the powdered acacia until homogeneous; add all at once 300 c.c. (mils) of syrup of wild cherry and triturate until an emulsion is formed. To this add gradually with constant stirring a mixture of the extract of malt, the glycerin and 125 c.c. (mils) of syrup of wild cherry. Finally add the required amount of syrup.

Compound Capsicum Ointment.

Oleoresin of capsicum.....	16 c.c. (mils).
Croton oil.....	8 c.c. (mils).
Powdered camphor.....	16 grammes.
Oil of turpentine.....	32 c.c. (mils).
Oil of cajuput.....	16 c.c. (mils).
Oil of cloves.....	8 c.c. (mils).
Methyl salicylate.....	8 c.c. (mils).
Yellow wax.....	32 grammes.
Yellow petrolatum.....	500 grammes.

Liquefy the wax and the petrolatum on a water-bath; dissolve the camphor and the oleoresin in the essential oils; mix everything together; strain through muslin, and stir until congealed.

Compound Ointment of Zinc Carbonate.

Zinc carbonate.....	45.0 grammes.
Salicylic acid.....	5.6 grammes.
Hydrous wool-fat.....	45.0 grammes.
Petrolatum	125.0 grammes.
Benzoated lard sufficient to make	250.0 grammes.

Liquefy the petrolatum on a water-bath; dust into the liquid the zinc carbonate and the salicylic acid previously well powdered; mix thoroughly; add the other fats, and stir until cold.

Crystal Brilliantine.

Natural palmitin.....	500 grammes.
Russian paraffin oil.....	3,000 grammes.
Saturated alcoholic solution of sodium hydroxide.....	enough.
Vanillin	7 grammes.
Coumarin	7 grammes.
Artificial musk.....	3 grammes.
Oil of sweet orange.....	25 c.c. (mils).
Oil of neroli.....	1 c.c. (mil).
Benzyl acetate.....	3 c.c. (mils).
Benzyl alcohol.....	3 c.c. (mils).
Fat-soluble chlorophyll.....	enough.

Dissolve 400 grammes of the palmitin in 1,000 grammes of the oil with the aid of heat; saponify with the solution of sodium hydroxide until the batch is alkaline to phenolphthalein. Dissolve this soap in a solution of the rest of the palmitin in the remaining 2,000 grammes of oil, using a temperature of 110° C. As the mass begins to cool stir in the color and the perfumes previously mixed, and pour into suitable containers.

Abstracts

Estimation of Nitric Acid in Commercial Bismuth Subnitrate.

The method of estimating nitric acid in commercial bismuth subnitrate originated by Smith has been modified by Harrison (*Ann. chem. analyt.*) in the following way: A mixture of 2 grammes of bismuth subnitrate, 20 c.c. (mils) of water and 10 c.c. (mils) of normal caustic soda solution are heated with frequent stirring until the bismuth oxide has assumed a uniform yellow color, indicating that the decomposition of the subnitrate is complete. The liquid is then separated by decantation, the precipitate thrown on a filter and washed two or three times with hot water. After cooling the combined liquid and wash-waters are diluted with sufficient water to measure 100 c.c. (mils); 25 c.c. (mils) of this solution are then neutralized with normal sulphuric acid and after the addition of 0.5 c.c. (mil) of acid of the same strength evaporated to 2 to 3 c.c. (mils). This residue is then transferred to a nitrometer and the nitrogen present in it is determined in the usual way. The author also calls attention to a method originated by Brown, the details of which were published just when the experiments above described had been finished. This method depends on the conversion of bismuth subnitrate into bismuth oxychloride and nitric acid by means of sodium chloride. The bismuth oxychloride is separated from the mixture by filtration and in the filtrate the nitric acid is determined by titrating in an aliquot part the excess of sodium chloride, not used for the conversion of bismuth subnitrate, with N/10 silver nitrate solution; and by evaporating another aliquot part to dryness in the presence of an excess of hydrochloric acid and estimating the combined sodium chloride, both that obtained by the decomposition of the sodium nitrate with the hydrochloric acid and that not used for converting the bismuth subnitrate. From the figures thus obtained the amount of nitric acid can easily be calculated.

Improvement in Heller's Test for Albumin.

Heller's test for albumin in urine or other liquid, which consists in gently running a layer of the liquid on to the surface of nitric acid and noticing if a white ring is formed where the two liquids meet, is somewhat reduced in value by the difficulty in preventing the liquids mixing; if mixing occurs, the albumin is not precipitated on diluting. Michel (*Chem. Zeit.* through *Pharm. Journ.*) in experiments to obviate this difficulty by raising the specific gravity of the acid by dissolving certain salts in it finds that the test is much improved by saturating the nitric acid (specific gravity 1.4) with ammonium nitrate. About 2 c.c. (mils) of the reagent is then taken, and 1 c.c. (mil) of the liquid to be tested is gently run on to its surface by means of a pipette; a well-defined white ring forms at once or after some time, according to the amount of albumin present. If carefully shaken, the two liquids only mix slowly, and if albumin is present, the upper liquid becomes more or less cloudy, unlike what happens with ordinary nitric acid. If the mixture is heated it becomes clear, with the development of a slight yellow color; on cooling the turbidity reappears, and is much increased on diluting.

Separation of Urobilin by Talcum.

Carrez (*Rép. pharm.*) notes that when urine is clarified with the aid of ferrocyanide of zinc, a reddish precipitate at times is obtained. This color indicates the presence of urobilin. In the urine of diabetic persons, however, the reddish color often can hardly be noticed and the urobilin can be detected only by applying Oliviero's reagent which is prepared by dissolving 10 grammes of zinc chloride in about 30 grammes of ammonia water—or sufficient to redissolve the precipitate first formed—and mixing the solution with 80 grammes of alcohol and 20 grammes of acetic ether. By treating the precipitate with this reagent and filtering, a filtrate will be obtained which in the presence of urobilin shows a characteristic green fluorescence. The author recommends the following modification of this process: forty-five c.c. (mils) of the urine to be examined are mixed thoroughly with 30 c.c. (mils) of Denigès' reagent (solution of acid mercury sulphate) and filtered; 50 c.c. (mils) of the clear filtrate are shaken with 1 gramme of talcum, which absorbs the urobilin, the mixture filtered at once, and the talcum washed well with distilled water. The urobilin cannot be removed from the talcum by washing with water or alcohol, but can easily be dissolved by ammoniacal alcohol or by alcohol containing hydrochloric acid. For the identification of urobilin the talcum enclosing the urobilin is treated on the filter with 5 to 6 c.c. (mils) of Oliviero's reagent, when at once a filtrate possessing a beautiful green fluorescence will be obtained, which, when viewed through a spectroscope, shows the characteristic band.

Action of Artificial Membranes on Ferments.

Porter (*Quart. Journ. Exp. Physiol.*) finds that a number of ferments, including pepsin, trypsin, and rennin, are rendered inactive by being kept in contact with artificial membranes, especially with colloidal ones. Most ferments which have thus been inactivated have at the same time acquired inhibitive properties. The inactivation of ferments by membranes is not due to simple absorption, for there is no evidence of saturation of the membrane; on the contrary, its inactivating power appears to improve with repeated use. Although the inhibitive power of the inactivated ferments may be due in part to substances preformed in the solution, inhibition is still present after removal of these substances, suggesting that the ferment itself is changed by contact with a membrane into a substance having an inhibiting power on itself.

How to Observe in Making Albumin Tests.

Katzenstein (*Journ. Am. Med. Asso.*) recommends that in making the heat or the contact tests for albumin, one should pass light rays through the urine and observe it at right angles to the rays—the principle being the same as seeing particles of dust in a ray of sunshine. Very minute quantities of albumin can thus be detected, says the author. In specimens in which he and others had failed to detect cloudiness in all other lights it was easily seen by this method. The urine should always be filtered, especially with the contact test. Any bull's-eye lantern will suffice for the method, and it has the advantage of being usable at any time, night or day.

Cancer in Tar Workers.

Schamberg in a paper presented at a meeting of the American Dermatological Association, said that cancers of the skin had been encountered in chimney-sweeps and in tar and paraffin workers. He reported in detail a case of multiple cancer of the skin which had occurred in a tar worker. That something present in coal tar, crude paraffin, and soot was capable, after the lapse of years, of stimulating the growth of epithelial cells and of leading to cancer in certain subjects seemed to him indisputable. As radium had proved capable of stimulating epithelial proliferation and cancer could be produced by the x-rays, it occurred to the author to determine whether coal tar emitted any rays. To test this he placed a copper cent, a flat key, and a small brass numeral upon a photographic plate in a pasteboard negative box lined with black paper. To the under surface of the lid he attached a piece of cardboard smeared with coal tar so that the tar faced downward. This box was enclosed in a black japanned tin cash box and the latter was shut in a dark closet for twenty-four hours. When the plate was developed a distinct shadowgraph of the three objects was seen upon the negative. This work was done so recently that there had not been time to carry out further investigations. If coal tar was proven to be radioactive it would seem that this radioactivity might be responsible for the cancer in tar workers. Volkmann and other writers long ago noted that uncleanness, i. e., negligence in removing tar or paraffin from the skin, was a factor in the production of the cancer. Only certain kinds of coal seemed to be provocative of the cutaneous changes. In Germany the so-called brown or cannel coal from which paraffin was made was responsible. Chimney-sweep cancer appeared to result almost exclusively from the burning of "pit coal" used for fuel in England. It was possible that certain coal might contain radioactive substances and that in other coal such substances might be absent. In a discussion which followed, Pusey said that even if it were positively demonstrated that tar had a moderate degree of radioactivity, he would not be inclined to attach much importance to it in this connection. Radioactivity was simply one form of irritation that stimulated the processes that culminated in epithelioma. In estimating the factors that contributed to the production of epithelioma there was no reason to attach more importance to radioactivity than to other forms of irritation.

Estimation of Lead in Beer.

In a paper read before the Midland (England) section of the Society of Chemical Industry, Knapp (*Pharm. Journ.*) said that while certain ingredients (glucose, invert sugar, and tartaric acid) used in the manufacture of beer may contain lead, the possible source of this impurity which led to the investigation he was reporting was the lead service pipe. Carbon dioxide may cause the solution of the lead, and the risk is increased by the acidity of the beer. Other liquids served from lead pipes have been shown on occasion to contain injurious quantities of lead. Thus, cases are recorded of ginger-beer containing 1/54 grain per gallon, and of aerated water from a soda-water fountain containing 7 grains per gallon. The quantitative estimation of these small proportions of lead can be done only by a colorimetric method,

hence it is necessary first to obtain a colorless or almost colorless solution. Several attempts were made to accomplish this, and the following process finally adopted. It is a modification of Allen's process for estimating heavy metals in canned foods: 100 c.c. (mils) of beer are evaporated to about 20 c.c. (mils) in a porcelain dish, which is as large as will conveniently go into a muffle; 10 c.c. (mils) of nitric acid are carefully added, and the evaporation continued until there is about 4 c.c. (mils) of a viscous liquid. One gramme of magnesia is well mixed with this syrup, and the whole dried and ignited in an open muffle till the ash is white. The ash is dissolved in 15 c.c. (mils) of diluted nitric acid (roughly three times normal strength), neutralized with diluted ammonium hydrate, made acid with 10 c.c. (mils) of roughly normal acetic acid, and diluted to 100 c.c. (mils). The small amount of insoluble matter is allowed to settle, and 50 c.c. (mils) of this solution in a Nessler glass is treated with 3 c.c. (mils) of saturated sulphuretted hydrogen water, and compared with standards put on at the same time. In a table showing grains of lead per gallon discovered, giving the mean of two determinations, the figures were as follows: Ale in pipe seven hours contained 0.05 grain; home-brewed ale in pipe eight hours, 0.04 grain; and mild ale in pipe seven hours, 0.03 grain.

Simple Method of Determining Phenol.

Lehmann (*Apoth. Zeit.* through *Pharm. Journ.*) notes that the gravimetric determination of phenol by precipitation as tri-bromphenol was at one time in vogue and was adopted in the second German Pharmacopœia; but it proved to be unsatisfactory, and was omitted from the third. The source of error was shown by Beckurts to be the formation of tribromphenol bromide, and this has led to a satisfactory modification of the test coming into use, and the new form of it has been adopted in the fifth German Pharmacopœia. The process consists in adding to a solution containing phenol known quantities of solutions of potassium bromide and bromate, acidifying with sulphuric acid, and shaking in a stoppered flask; after fifteen minutes' standing the excess of bromine is determined by adding potassium iodide and titrating with thiosulphate. If the bromate solution is made to contain 1.6702 grammes of KBrO_3 in 1 liter, 50 c.c. (mils) = 30 c.c. (mils) of N/10 thiosulphate; if therefore 50 c.c. (mils) of the bromate solution is employed in a given case, the number of c.c. (mils) of thiosulphate used is to be deducted from 30, and the difference multiplied by 0.001567 gives the weight of phenol precipitated. The quantity of bromide employed does not affect the result, so long as sufficient is used; from 0.5 to 1 gramme is a convenient quantity.

New Test for Thallium.

Tanatar and Petroff (*Journ. Russ. Phys. Chem. Soc.* through *School Mines Quart.*) propose sodium cobaltinitrite, $\text{Na}_3\text{Co}(\text{NO}_2)_6$, as a test for thallium. When added to a cold, slightly acid solution of a salt of that metal, $\text{Th}_3\text{Co}(\text{NO}_2)_6$ is precipitated, the precipitate being red, crystalline, and insoluble in hot water or cold dilute acids. Lead is the only other metal giving a precipitate with the reagent, and the lead compound is soluble in hot water.

Separation and Determination of Zinc.

Pipereaut and Vila (*Proc. Seventh Int. Cong. Appl. Chem.*, 1909, through *Journ. Soc. Chem. Ind.*) propose the following method for the separation and determination of zinc. Digest 5 grammes of the final powdered sample with nitrohydrochloric acid until completely disintegrated. After removal of the insoluble residue by filtration, precipitate the heavy metals and collect the acid filtrate and washings from these, in a graduated flask of 250 c.c. capacity. Neutralize the liquid with caustic soda, the addition of which is to be continued until the zinc has been precipitated and redissolved. The flask is then to be filled to the mark with water and shaken, and the contents filtered on a cone of asbestos to remove hydroxide of iron and other insoluble matter. Dilute 50 c.c. (mils) of the clear filtrate largely with distilled water and heat to boiling in a 500 c.c. (mil) conical flask, and to the boiling liquid add 2 to 3 grammes of finely powdered sulphur. The heating is continued, and after a time sulphide of zinc separates as a dense precipitate. When all the sulphur has dissolved, fill the flask to about three-quarters with boiling distilled water, and allow to stand for about fifteen minutes. The upper liquid is then to be poured off, and the precipitate washed with hot water by decantation and afterwards thrown on the filter. Finish washing by allowing about 300 to 500 c.c. (mils) of a boiling, strong solution of ammonium sulphide to flow over the precipitate. Dry the filter and precipitate, and then ignite in a muffle, the atmosphere of which should be as strongly oxidizing as possible. After 30 to 40 minutes, oxidation should be complete. The zinc oxide, after weighing, should be tested to make sure that it contains no sulphide, sulphate or substances insoluble in hydrochloric acid.

Saccharin an Adulterant.

The referee board appointed to review certain decisions of the bureau of chemistry of the United States department of agriculture recently concluded an investigation regarding the use of saccharin in food and reported that "the continued use of saccharin for a long time in quantities over three-tenths of a gram per day is liable to impair digestion; and the addition of saccharin as a substitute for cane sugar or other forms of sugar reduces the food value of the sweetened product and hence lowers its quality." On these findings, the department has issued an order that after July 1st, 1911, saccharin-containing foods will be regarded as adulterated within the meaning of the food and drugs act. An appeal from this decision by manufacturers of saccharin has, however, reopened the case.

Detection of Benzoic Acid in Butter.

Marchadier (*Ann. Falsif.* through *Pharm. Journ.*) proposes the following method for the detection of benzoic acid in butter: Into an Erlenmeyer flask containing 20 c.c. (mils) of distilled water introduce 25 grammes of the sample, a pinch of powdered pumice stone, and 0.5 c.c. (mil) of sulphuric acid. Attach the flask to a condenser suitable for the distillation of fatty acids, and heat. Collect the first 15 c.c. (mils) of distillate and add to it (1) one drop of 1 per cent. solution of ferric chloride; (2) two drops of 12-volume hydrogen dioxide diluted to 10 per cent. Shake, allow to rest. In three to six hours, if benzoic

acid be present, a very distinct violet coloration results which persists for several hours. The method is not specific for benzoic acid; all phenol bodies give the same reaction, but pure butter gives no reaction. The method is rapidly carried out (fifteen minutes at the most), and will be useful on that account, since the isolation of antiseptic substances is sometimes neglected because of the difficulties to be encountered. Experiments with margarin containing 1 to 4 grammes of benzoic acid per kilogram have always given the author positive results.

Assay of Commercial Lactic Acid.

Elvove (*Am. Journ. Pharm.*) notes that it has been pointed out by Murray that the assay requirements of the U. S. P., 1900, for lactic acid, indicating a supposed strength of 75 per cent., do not agree, theoretically, with the specific gravity therein given—"about 1.206 at 25° C." Acid of this density would have a lactic acid content of 85 to 88 per cent. This points to a defect in the method of titration. The author has found that the official process of titration during boiling to a faint pink color with phenolphthalein gives results markedly too low. A more accurate and convenient process is the following method of cold titration: About 2 grammes of the acid, accurately weighed, are treated with 50 c.c. (mils) of N/NaOH solution, well mixed, and set aside for thirty minutes. The excess of alkali is then titrated back in the usual manner, in the cold, with N/H₂SO₄ and phenolphthalein indicator. Each c.c. (mil) of N/NaOH thus used is equivalent to 0.09 gramme of lactic acid. Seven commercial samples thus tested gave from 86.1 to 89.92 per cent.; the same samples titrated directly at normal temperatures gave only 71.95 to 72.71 per cent.; other methods of manipulation gave slightly higher results. By boiling the acid with excess of alkali, cooling, and titrating back, in some instances results indential with the above cold titration were obtained, and in others only a few tenths per cent. higher.

The Rotation of Levulose.

Wender (*Biochem. Zeit.* through *Pharm. Journ.*) says that most inorganic acids bring about a rise in the specific rotation of levulose, which increases with the strength of the acid. Among the organic acids used by the author, oxalic acid causes an increase, while in presence of acetic acid a small decrease in rotation takes place. Alkalies cause a fall in the specific rotation which increases with the time, and is due to isomeric change of the sugar. Feebly basic substances are almost without effect on the rotation. Inorganic salts in some cases cause a rise, while in other cases a fall in rotation is observed. Here also the concentration of the inactive substance is of importance. Alcohols and acetone bring about a decrease in rotation which is proportional to the amount of alcohol or acetone present.

Danger in Old Colloidal Silver.

According to Hamburger (*Pharm. Week.* through *Chemical Abstracts.*) fresh collargol preparations are readily miscible with water but when two or three months old they are not so soluble. Such old solutions used intravenously sometimes produce dangerous embolisms and should therefore be avoided.

Crystallization in Sodium Salicylate Solutions.

Hill, in a letter to the *Pharmaceutical Journal*, says that since showing some months ago at a meeting of the Pharmaceutical Society of Great Britain, the formation of an abundance of hydrated crystals from a cold concentrated solution of ordinary commercial sodium salicylate, the formation of the hydrated crystals has been confirmed in several directions, and he has had a large number of cases brought to his notice by pharmacists. "There is no doubt," he continues, "that whereas formerly the crystallization of 50 per cent. solutions was a rarity, it has since become a common occurrence in winter months, and one naturally seeks for an explanation of this altered state of affairs. Speaking generally, the degree of purity of the anhydrous sodium salicylate as turned out by the best German factories to-day is very high; and, speaking particularly, the purity both of the crystallized sodium salicylate described, as well as that of the parent salt utilized, has been proved by actual tests. Clearly, then, the formation of these crystals is a perfectly normal phenomenon, and it is the former stability of the concentrated solutions which requires explanation. I incline to the view that these concentrated solutions (such as 50 per cent.) must be regarded as supersaturated solutions of the hydrated salt, and their non-crystallization attributable to the presence of impurity in the commercial salt which inhibited crystallization (the impurity being disodium salicylate $C_6H_4(ONa)COONa$, the presence of which would not affect melting-point determinations of the liberated salicylic acid). The sodium salicylate of commerce being now purer than formerly crystallizes more readily, and pharmacists must be prepared for solutions to crystallize if they fail to keep within the solubility limit of the hydrate." Watson, a fellow chemist, has determined that at 15° C. 68 grammes of anhydrous salt are soluble in 100 grammes of water; at 20° C. 100 grammes are soluble in the same quantity of water. The author urges that in making concentrated solutions of the salt, they should be prepared with hot water and filtered (through paper) to ensure the absence of any undissolved particles which may facilitate crystallization.

Action of Air on Chlorinated Lime.

Jules Garcon (*Bull. Soc. d'Encom. through Journ. Franklin Inst.*) says that when air deprived of all carbon dioxide reacts with chlorinated lime, a little hypochlorous acid is slowly liberated. (When carbon dioxide reacts with it, either in powder or dissolved, chlorine only is given off.) Ordinary damp air acting on the powder, liberates at first a mixture of hypochlorous acid and of chlorine, then chlorine only. It has the same effect on the solution. Air, freed from carbon dioxide, sets free considerable quantities of chlorine from a solution of chlorinated lime, containing no free lime.

Poisoning from Bismuth Subnitrate Paste.

At a recent meeting of the Academy of Medicine of Cincinnati Whitacre reported two cases of poisoning by injection of bismuth subnitrate paste; one proving fatal. Cushny, remarks the author, gives as the symptoms of poisoning from bismuth, salivation,

swelling of the gums, tongue and throat, and gangrene of the soft palate and other parts of the mucous membrane of the mouth. Vomiting, diarrhea, albuminuria follow. These symptoms, he continues, follow the application of much less amounts of bismuth to granulating surfaces than are frequently given internally. It would appear, says the author, that bismuth is either more rapidly absorbed from granulating surfaces than from mucous membranes, or that bismuth taken internally is prevented by the liver from reaching the general circulation.

Estimation of Creosotal and Duotal.

Fernan (*Zeit. Allg. Oester, Apoth. Ver.*) gives the following method for a rapid estimation of the purity of creosotal and duotal. Ten grammes of the substance under examination are dissolved in a porcelain dish in 30 grammes of a 10 per cent. alcoholic solution of caustic potash and the mixture evaporated with constant stirring to about 15 c.c. (mils). After adding sufficient hydrochloric acid to insure an acid reaction, the mixture is transferred to a graduated cylinder, the dish rinsed well with water, and the liquid diluted with water until 60 c.c. (mils) are obtained. After the addition of about 10 grammes of sodium chloride the mixture is shaken well and allowed to stand for a short time. The phenol separates completely and can be measured. Ten grammes of duotal should yield 7.9 c.c. (mils) of guaiacol; and 10 grammes of creosotal, 8.5 c.c. (mils) of creosote.

Estimation of Fatty Acids in Soap.

Budde (*Veroefft. Milit. Sanit.*) recommends the following process for the estimation of fatty acids in soap: 25 c.c. (mils) of a neutral soap solution representing 0.5 to 0.8 gramme of soap, are boiled with 25 c.c. (mils) of copper sulphate solution (69.26 grammes of the salt in one liter). After allowing to stand for 24 hours, the mixture is filtered through a tared filter, and flask and filter are washed well with small quantities of cold water and, after drying at 103°C., weighed. By titrating the excess of copper in the filtrate, the amount of the metal combining to form the copper salts of the fatty acids is found by difference. By deducting this amount from the weight of the copper salts contained in the flask and on the filter, and adding the weight of the hydrogen equivalent of the combined copper the amount of fatty acid is obtained.

Reagent for Chromium.

For the detection of small amounts of chromium, Koenig (*Chem. Zeit.*) recommends the use of the sodium salt of dioxynaphthalindisulphonic acid. Solutions of this salt produce with very diluted solutions of chromic acid, chromates or dichromates a cherry-red or deep red-violet color, the intensity varying with the amount of chromium present. Ferric salts produce a green color and neutral uranium or tungsten salts a red color with the reagent; these colorations disappear on the addition of phosphoric acid. The solutions to be tested should be neutral or slightly acid. On account of its sensitiveness this reaction can also be used for a colorimetric determination of chromium.

Alcoholic Fermentation.

Harden (*Ann. Brass. Dist.*) has made an extensive study of the alcoholic fermentation process, and has made the following observations: The author some years ago found that the juice obtained from yeast by grinding with water can be separated by dialysis into two substances, neither of which alone produces fermentation. The dialysable substance has been called co-enzyme, while the substance remaining on the dialysate was called enzyme. The enzyme proper is activated by the co-enzyme, even when the latter has been heated to a high temperature. These two substances gradually disappear during the fermentation process, the co-enzyme more rapidly than the enzyme. The fermentation stops as soon as the co-enzyme is used up, and may be started again by a new supply of the latter. Absolutely necessary for the fermentation is the presence of phosphates. These salts, which are contained in the dialysed liquid, do not remain intact during the fermentation process, but, according to the author, form a new compound, a combination of hexose and phosphoric acid, to which the name hexose-phosphate has been given and the formula $C_6H_{10}O_4(PO_4H_2)_2$. This product, which is not precipitated by magnesia mixture, is formed only in the presence of the co-enzyme and enzyme. The author has also made a study of the dioxyacetone $CH_2OH \cdot CO \cdot CH_2OH$, which can be isolated during the fermentation process, and which he considers as an intermediate product obtained by the reduction [oxidation?] of glycerin.

Criticism of the Pepsin Assay of the French Pharmacopœia.

Postes (*Journ. pharm. chim.* through *Pharm. Journ.*) notes that in the assay process for pepsin of the French Pharmacopœia the addition of 20 drops of nitric acid to 10 c.c. (mils) of the digestion product at the ordinary temperature is directed to show whether peptonization is complete. Pepsin of satisfactory quality is required to give no marked precipitate under these conditions. The author finds that the instruction as to temperature is not sufficiently definite to insure accurate results. Three separate 10 c.c. (mils) of the same digestion liquid, when submitted to the official test at 10°, 15°, and 20° C. respectively, gave satisfactory results at 20°, the test indicated that the pepsin was passable at 15° C., and that it was not of official strength at 10°. The temperature at which the test should be made should be definitely specified.

Quinine and Euquinine.

Astruc and Courtin (*Journ. pharm. chim.* through *Pharm. Journ.*) compare the chemical properties of quinine and euquinine. Characters common to both are: Neutrality to phenolphthalein; they are basic to helianthin and litmus; precipitated in solution by the usual alkaloidal reagents; solutions with oxygenated acids are fluorescent; they give the thalleioquin reaction; are precipitated from their salts by alkali carbonates and bicarbonates; their aqueous solutions become yellow on exposure to light; they give salts by direct action of acids. Among the characters by which they differ are: Quinine gives the herepathite reaction; euquinine does not; 0.97 of hydrochloric acid neutralizes (with helianthin), one of quinine;

1.05 of hydrochloric acid neutralizes (with helianthin) 1.00 of euquinine; 0.99 of hydrochloric acid neutralizes (with rosolic acid or litmus) 1.00 of quinine; euquinine is feebly alkaline to litmus; quinine gives two series of salts, neutral and basic; euquinine gives only neutral salts.

Caution Regarding Aspirin.

Mangan (*Brit. Med. Journ.*) reports that a lady, having been advised by a friend to try aspirin for rheumatism, took one 5-grain tablet. Soon afterwards her lips began to swell, the swelling spread rapidly all over her face, and finally her tongue and throat became affected. Some time later she again took 5 grains, with the same result, if anything more pronounced. The author looks upon the case as one of idiosyncrasy to the drug, which, though rare, makes it advisable always to start treatment with a small dose. In this case, had two or three tablets been taken instead of one, it is possible that fatal edema of the glottis might have occurred. Several similar cases have been reported elsewhere.

The Alkaloids of *Sanguinaria Canadensis*.

Kozniewski (*Bull. Acad. Sci., Cracow*, through *Chem. and Drug.*) has made an examination of the alkaloids of *sanguinaria canadensis*, which were shown by Schmidt to be five in number. Considerable difficulty has been experienced in the separation of sanguinarine, chelerithrine and protopine, and the author now describes a comparatively simple method for effecting this. The alcoholic extract of the root is evaporated and the residue treated with dilute acetic acid. The acetic acid solution is cooled and treated with 40 per cent. sulphuric acid, when a crystalline precipitate is formed, which is collected after forty-eight hours and on decomposition yields pure chelerithrine. The filtrate is cooled, and rendered faintly alkaline with ammonia, and the precipitate extracted with acetic acid and treated with sulphuric acid, by which a further crop of chelerithrine is obtained. After four precipitations all the chelerithrine is thrown down, and the filtrate contains protopine, which can be isolated in a pure state as the hydrochloride. The residue from the original acetic acid solution is treated with 20 per cent. sulphuric acid, from which the alkaloid sanguinarine is obtained in a pure state. It forms a periodide, $C_{20}H_{15}O_4 \cdot NI_2 \cdot HI$, melting at 205°. Chelerithrine periodide, $C_{21}H_{17}O_4 \cdot NI_2$, melts at 225°.

Poisoning by Tincture of Iodine.

Patris (*Arch. med. et pharm. mil.*) reports on the death apparently caused by tincture of iodine, of a soldier who had been operated on for inguinal hernia. The site of the operation had been painted with tincture of iodine prepared by the process of the Codex. The following day rattling of the throat was noticed, and to relieve the patient a small quantity of tincture of iodine was painted on the chest. On the day following an erythema, extending beyond the parts treated with iodine, developed and the next day the patient died. An autopsy showed that the wound and chest were in good condition; the lungs, however, were congested, the liver and spleen extraordinarily large and the kidneys edematous. Two similar cases have been reported in Germany.

The Modern Materia Medica.

Achibromin is monobromo-isovaleryl-glucolylyurea. It is put forward as a sedative.

Achijodin is a compound similar to achibromin, the bromine being replaced by iodine. It crystallizes in the form of small plates which melt at 150° C.

Anæsthöl, as the name indicates, is an anesthetic. It contains ethyl chloride, ether and chloroform in varying proportions.

Arsen-Blutan is a solution of ferro-manganese peptonate with arsenic.

Arsen-Regenerin consists of regenerin (ovo-lecithin, iron and manganese), lithium cacodylate and arsacetin.

Benzcain is guaiacolbenzyl ester. It is used for induction of local anesthesia by means of ionization.

Casogen is the name for a milk food. It contains milk protein, glycerophosphates, and ovo-lecithin.

Digestanol is prepared from coca, cinchona, simi-rubra, condurango, rhubarb and pepsin.

Enteroseptyl is said to be the phosphate of beta-trinaphthyl. It is claimed that it is insoluble in the gastric juice, thus passing the stomach unchanged, and is split up only in the intestines.

Ergotina styptica Egger is a fluidextract of ergot which contains stypticin. It is said to stimulate the heart action like digitalis, to act as a diuretic, and to regulate the pulse.

Eucarbon tablets, put forward as a laxative and disinfectant of the intestine, contain charcoal.

Fermentine contains the protoplasm and nucleus of yeast. It is a yellowish-white mass with a faint odor of yeast. It is said to have "reducing properties" and to act as an antiseptic.

Piamuls is the name for a cod liver oil emulsion, containing ferrous iodide, sodium and calcium hypophosphites and the yolk of eggs.

Fluoram is ammonium bifluoride.

Gelonida antineuralgia is said to contain codeine phosphate, phenacetin, and acetyl salicylic acid.

Gelonida antipyretica is said to contain antipyrine and caffeine.

Gelonida stomachica is said to contain extract of belladonna, bismuth subnitrate, and calcined magnesia.

Magricin is an effervescent powder, similar in composition to the tablets made from the Marienbad spring water.

Metaferrin is an iron-albumin preparation.

Nilotan, used for the treatment of wounds, is said to consist of balsams, resins, vegetable oils, mineral oil containing tar, and tincture of iodine.

Pacocreolin is a preparation put out by the manufacturer of creolin, and intended for disinfection of "cruder sorts." It was erroneously given the name paracreolin in our April issue.

Patentex, exploited for the treatment of leucorrhea and as an antiseptic, is a fat-free ointment containing quinosol, alsol and boric acid.

Pinoxic is an aqueous extract obtained by distilling pine-needles. It contains 3 to 4 per cent. of volatile oils.

Primon contains 10 per cent. of lecithin combined with albuminoidal substances and carbohydrates.

Pulmakol is a liquor containing potassium sulphoguaiacolate and extract of orange peel.

Phospho-Vanadiol is marketed as a combination of *vanadiol* with "organic phosphorus."

Revulsol is the name for flannel saturated with a mixture of alcohol, water, tincture of capsicum, and salicylic acid. It is put forward for the treatment of rheumatism.

Salimenthol Preparations are compounds containing as their active principle salicylic acid menthol ester.

Thiorubrol consists of a mixture of a sulphuretted fixed oil and an emulsifying agent and is colored red with phloxin.

Tribrom-beta-naphthol, put forward as a disinfectant is a mixture of several isomeric tribrom-beta-naphthols, obtained by the action of bromine on beta-naphthol. It occurs as a light-red or brown crystalline mass, which is odorless and tasteless, is insoluble in water, but soluble in most of the organic solvents and in oils and saponifiable fats.

Vanadiol is said to be a solution of vanadium hypochlorite. It is said to act as an augments of hemoglobin and to increase the leucocytic count, and is suggested for use in anemia, tuberculosis and other impoverished pathogenic conditions. We are apprised by the manufacturers that the description of *vanadiol Hélois* in the second edition of *The Modern Materia Medica* does not apply.

Vanadioseptol, offered as a germicide, is described as a solution of vanadium equivalent to 1 in 1000 corrosive mercuric chloride.

Vanodiserum is *vanadiol* prepared for hypodermic administration.

Vanaform is a dusting powder and hemostatic said to contain vanadium and to liberate oxygen in contact with diseased tissue.

Volkmann's Thymol Solution contains thymol, alcohol, glycerin and water.

Milk of Almonds.

Powdered castile soap.....	3.0 grammes.
Spermaceti	3.0 grammes.
White wax.....	3.0 grammes.
Almond oil.....	56.0 grammes.
Alcohol	100.0 c.c. (mils).
Distilled water.....	100.0 c.c. (mils).
Glycerin	100.0 c.c. (mils).
Oil of bitter almond.....	1.2 c.c. (mils).
Ammonium fluoride.....	1.2 c.c. (mils).

Melt together the first four ingredients, and into this liquid, while warm, pour all at once the mixture of the other ingredients. Beat until cool.

To Waterproof Canvas.

Stretch the cloth moderately taut and flow over it the following solutions in rotation:

a.	
Gelatin	5 ounces.
Water	1 gallon.
b.	
Alum	10 ounces.
Water	1 gallon.
c.	
Rosin soap.....	4 ounces.
Water	1 gallon.

Notes and Queries.

NOTICE.—It is desirable that all questions to be answered under this head should be received before the fifteenth of the month and they must be accompanied with the name and address of the writer.

Queries are not answered by letter. The information supplied in these columns is intended for the benefit of our readers in general, not for the profit of the individual inquirer only.

Ichthyol in Suppositories.—M. D. C., Oklahoma.—Although it has been stated by various writers that ichthyol has a tendency to render a glyco-gelatin mass insoluble, this belief has now but few adherents and the glyco-gelatin base is quite generally used for suppositories or pessaries containing ichthyol. It has been pointed out that any hardening that may be observed in these preparations is due to a loss of water and may be prevented by keeping the suppositories in tightly stoppered bottles. Suppositories that have become hard may be made soluble by soaking them for a time in water.

G. Roe writing in the *Pharmaceutical Journal* (London) reported that the glycerin suppository mass of the British Pharmacopœia formed a very satisfactory base for ichthyol suppositories or pessaries. The British official formula for the glycerin suppository mass is as follows:

Gelatin (cut small).....	14.2 grammes.
Glycerin	71.0 grammes.
Distilled water, a sufficient quantity.	

Place the gelatin in a weighed evaporating dish with sufficient distilled water to cover it; let it stand for two minutes; pour off the excess of distilled water; set aside until the gelatin is quite soft; add the glycerin; dissolve on a water-bath; evaporate until the mixture weighs 102 grammes.

Another formula which produces a somewhat firmer mass is as follows:

Gelatin	1 ounce.
Water	1 ounce.
Glycerin	3½ ounces.

Cut the gelatin into shreds; soak it in the water until softened; add the glycerin, and make a solution with the aid of a gentle heat.

To employ either of these masses in making ichthyol suppositories, place the desired weight in a porcelain capsule; melt it over a water-bath; stir in the ichthyol, and pour into wet molds.

Staining Fluids for Bacteria.—B. S., New York.—Directions for making and using the anilin stains employed in bacteriological work are given in all the leading works on bacteriology. Several of these works have been noticed in recent issues of the CIRCULAR. Any of the following books will serve your purpose: Wood's Chemical and Microscopical Diagnosis (Appletons); Hiss and Zinsser's Text-Book of Bacteriology (Appletons); and Stitt's Practical Bacteriology, Blood Work and Parasitology (Blakiston).

With reference to the stains which you mention particularly, Wood directs that the alcoholic solutions be made as follows:

Gentian violet.

Gentian violet.....	4.8 grammes.
Alcohol, 96 per cent.....	100.0 c.c. (mils).

Methylene blue.

Methylene blue.....	7 grammes.
Alcohol, 96 per cent.....	100 c.c. (mils).

The aqueous solutions contain 1.5 per cent. of gentian violet, and 6.7 per cent. of methylene blue, respectively.

Bismarck brown is generally used in the form of a moderately dilute solution in distilled water, preserved with a small lump of camphor.

Staining solutions should be kept so as to preclude as far as possible any contact with air and light. A note on this subject appeared in last month's CIRCULAR, page 248.

Seeking a Coloring Agent.—Doctor K., New York, asks: "How can I color a solution, it should look like olive oil? The coloring matter must not be a dye."

Assuming that our querist wishes to avoid the use of anilin dyes, and handicapped by a complete lack of data as to the nature of the solution to be colored, we can but suggest experimentation with safflower and indigo sulphate mixed in the proportion of about 15 to 1 and digested in the solution. Annatto or turmeric or a tincture of either may be used instead of safflower; and chlorophyll or tincture of grass or spinach may take the place of the indigo.

Green-tinted solutions for show bottles may be made as follows; both solutions are, of course, poisonous. The first formula gives an olive-green.

Copper sulphate.....	35 parts.
Hydrochloric acid.....	16 parts.
Iron subcarbonate.....	4 parts.
Water	450 parts.

Disolve the iron salt in the acid and the copper salt in the water; mix the solutions.

A solution with a more yellowish tint may be made with

Iron sulphate.....	10 parts.
Sulphuric acid.....	10 parts.
Copper nitrate.....	enough.
Water	280 parts.

Dissolve the iron salt and the acid separately in 140 parts of water; mix the solutions, and add little by little the copper nitrate until the desired shade is reached.

Cuticura.—J. J. P., Pennsylvania.—At various times we have stated in these columns that we had no knowledge of the composition of this nostrum, but had seen a statement that it consisted of petrolatum, containing 2 per cent. of phenol; and colored green, and perfumed with oil of bergamot. This nostrum is referred to in *Secret Remedies*, a book published by the British Medical Association (see the CIRCULAR for January, 1910, page 10) in the following words:

It consisted of a mixture of hard and soft paraffins, slightly perfumed with rose, and colored green. The chief green coloring matter present appeared to be an anilin dye . . . No other ingredient could be discovered.

"Lapis Baptista."—F. K., New York.—"Lapis baptista" is an old-time synonym for talc, soapstone, magnesium silicate, that seems to find favor with practitioners of cosmetics. This name for talc appears in the works of one or more European writers on cosmetics. It is said that the name originated through the use of soapstone for the construction of baptismal fonts in the churches of Venice and other Italian cities.

Base for Soft Sand Soap.—Aside from its expensiveness the soft soap of the Pharmacopœia is an excellent base for the popular hand-cleaning abrasive pastes. Linseed oil soap is somewhat more detergent than the products of other vegetable oils, but linseed oil is far from cheap. A mixture of 10 parts of cottonseed oil and 2 parts of lard, saponified with a sufficient quantity of a mixture of equal parts of sodium hydroxide and potassium hydroxide, makes a soap having good cleansing and lathering properties.

In a recent number of the *American Journal of Pharmacy*, J. K. Thum, offers the following formula for a gritty hand-cleaning soap:

Stearic acid.....	500 grammes.
Cottonseed oil.....	500 c.c. (mils).
Sodium hydroxide.....	150 grammes.
Sodium chloride.....	200 grammes.
Alcohol	150 c.c. (mils).
Water	2,000 c.c. (mils).
Powdered pumice.....	300 grammes.

The acid and the oil are heated together until the first is dissolved; the sodium hydroxide dissolved in 1000 c.c. (mils) of water is poured into the fatty mixture, and the batch is heated for fifteen minutes with constant stirring. The alcohol is then stirred in and the stirring continued until the mixture becomes homogeneous. A solution of the sodium chloride in the rest of the water is stirred into the soap mass, and when the mass has hardened the watery liquid is drained off. After the mass has been washed several times with distilled water it is melted and while it is soft the pumice is incorporated and the soap poured into molds to harden.

This is a hard soap but by using an equivalent quantity of potassium hydroxide to replace the sodium hydroxide, and modifying the process by omitting the salting out with the solution of sodium chloride, the melting and the molding, a satisfactory soft product might be secured.

Hand-cleaning pastes should contain an excess of alkali. The abrasives generally used are powdered pumice and fine sand. For some purposes a moderately hard soap containing about 2 per cent. of incorporated kerosene oil in addition to the abrasive, is particularly well adapted. Solution of sodium silicate is said to be present in some of these soaps; it is frequently used as a weighter in cheap soap; its detergent properties are practically nil.

A number of formulas for hand-cleaning preparations appear in the CIRCULAR for March, 1910, page 118, and for February, 1908, page 75.

Picric Acid Stains.—"Hoosier," Indiana, writes: "Do you know of an 'antidote' for a pair of trousers which have been accidentally decorated with Esbach's reagent (picric acid)?"

Picric acid stains are wonderfully tenacious, whether upon fabric or fingers, but it has been reported that these stains may be removed from the skin by washing in milk or a light sugar-and-water syrup. Because of its solvent properties ether might be of use as a stain remover. If used its high inflammability must be borne in mind. The color of the stains can be somewhat reduced by repeatedly saturating them with a concentrated solution of sodium hyposulphite.

Liquid Green Soap.—C. B., Maryland.—Presumably the liniment of soft soap of the Pharmacopœia has not proved satisfactory for your purpose. As its shortcomings in this instance are not known to us we hazard the appended formulas for similar preparations:

I.

The following process, which originally was described in the CIRCULAR for December, 1910, page 631, we are informed, has been used with satisfactory results by a number of our readers. The product lathers well in hard or soft water.

Coconut oil, fresh.....	250.0 grammes.
Potassium hydroxide.....	65.5 grammes.
Sodium hydroxide.....	13.5 grammes.
Alcohol	400.0 c.c. (mils).
Oil of orris (soap-makers') ..	0.4 c.c. (mil).
Solution of ionone.....	0.2 c.c. (mil).
Chlorophyl green for alkaline liquids	enough.
Water.....	enough to make 1000 c.c. (mils).

Melt the coconut oil in a suitable vessel on a sand-bath, or in a steam-jacketed kettle. Dissolve the hydroxides in 350 c.c. (mils) of water, and pour the solution into the melted oil. Let the mixture boil gently, scraping down the sides of the vessel occasionally, until it begins to "splutter"; keeping the vessel warm, stir the mixture with a paddle for fifteen minutes. Then stir in about 150 c.c. (mils) of water and let the mixture boil as before, scraping down the sides of the vessel and stirring the mixture occasionally. When it has reached the "spluttering" point, stir it for about ten minutes; add 300 c.c. (mils) of water, and bring to a boil, beating thoroughly. Remove the vessel from the fire, or cut off the steam if a jacketed kettle is used; add the alcohol, and stir rapidly until a homogenous mixture is secured. Transfer to a suitable container and set aside to cool, agitating a few times. Filter through a pledget of cotton; add the perfumes and color and enough water to make 1000 c.c. (mils).

II.

This one was suggested by M. I. Wilbert in a paper printed in the CIRCULAR for October, 1907, page 631:

Sodium hydroxide.....	40 grammes.
Potassium hydroxide.....	40 grammes.
Cottonseed oil.....	500 c.c. (mils).
Alcohol	250 c.c. (mils).
Distilled water to make.....	2,500 c.c. (mils).

In a suitable container, preferably a glass-stoppered bottle, dissolve the hydroxides in 250 c.c. (mils) of distilled water; add the alcohol, and then add the cottonseed oil in three or four portions, shaking vigorously after each addition. Continue to agitate the mixture occasionally, until saponification has been completed. Then add the remaining portion of distilled water and mix. The only precautions that Mr. Wilbert considered necessary are to use ingredients of U. S. P. quality, and to be sure that saponification is complete before adding the remaining portion of the distilled water. The water used must be absolutely free from soluble salts of the alkaline earths or the heavy metals and for this reason should be, preferably, freshly distilled.

The soap may, of course, be colored and perfumed as desired.

Purple Spirit of Nitrous Ether.—G. F. T., New Jersey, writes as follows:

Have purchased three batches of [concentrated] spirit of nitrous ether tubes from three jobbers. Date of expiration on each package indicated that they were good. Alcohol used, _____'s. Upon making spirit of nitrous ether, after standing six hours the entire liquid turned light purple. No further change on standing. Slight effervescence on adding potassium bicarbonate, and, after standing over same three days, turned yellow. Can you tell me the cause of the reaction? Also, is the resultant spirit safe to use?

G. F. T.'s experience with this puzzling phenomenon is seemingly unique, as the reaction he describes appears not to have been reported previously. The conditions evidently are not normal and we should be inclined to look to the alcohol container for the disturbing element. If the alcohol had been kept in tin or iron tanks or cans, iron might be present in the spirit in sufficient quantity to produce the purple coloration through reaction with a trace of tannin extracted from a specked cork in the stock bottle. Tannin so accounted for is often responsible for the yellowish color acquired by spirit of nitrous ether kept in a cork-stoppered bottle.

The yellow color produced after adding potassium bicarbonate is more easily accounted for. Alcohol normally contains some aldehyde, and the acid nitrous ether will produce more aldehydes forming yellow compounds with alkalies, hence the yellow color. If the purple coloration was due to an iron-tannin combination it would be destroyed by the alkali, and only the yellow color imparted by the aldehydes would show. The effervescence is due, of course, to the carbon dioxide liberated in the interaction between the potassium bicarbonate and the nitrous acid usually set free in concentrated spirit of nitrous ether which has been kept for some time.

If the foregoing iron-tannin premise be correct we are of the opinion that the spirit is in no way unfit for use.

A Prescription Difficulty.—E. R., California, wishes to know how to make a "respectable-looking mixture" of the following:

R Codein. sulph.....	0.535
Glycyrrh. ammon.....	4.000
Acid benzoic.....	4.000
Ammon. chlor.....	8.000
Spts. anisi.....	8.000
Aq. anisi.....	ad 90.000

M. Sig.: $\bar{\text{Si}}$ every 3 hours.

At best this combination will produce only a "shake" mixture. The quantity of alcohol present is not enough to keep the acid in solution, hence it is better not to dissolve the acid in the spirit because it will be deposited in crystals, whereas if it be rubbed up with the aqueous liquid a fairly good suspension will result. We should dissolve the codeine sulphate in a minimum quantity of the anise water, about 15 c.c. (mils); dissolve the glycyrrhizin and the ammonium chloride in about 50 c.c. (mils) of anise water; rub up the acid with this latter solution; add the alkaloidal solution, and lastly the spirit. Because of the ease with which the last dose or two of a "shake" mixture may contain an excessive amount of the precipitate, the dispensing of such mixtures containing poisonous alkaloids may be attended with grave results. It is always wise to call the attention of the prescriber to this fact before delivering the medicine.

If the prescriber would permit the use of an amount of codeine equivalent to the prescribed quantity of codeine sulphate, and the use of at least 30 c.c. (mils) of alcohol to replace the spirit of anise and some of the anise water, a clear solution could probably be produced.

Liquor Ammonia Anisatus.—L. W. L., New Jersey.—This preparation is official in Germany, the formula of the new German Pharmacopœia being as follows:

Oil of anise.....	1 part.
Alcohol	24 parts.
Ammonia water [10 per cent.].....	5 parts.

The oil is dissolved in the alcohol, and the ammonia water is added. The parts are all by weight.

This formula has been printed in the CIRCULAR a number of times. The formula of the Spanish Pharmacopœia is identical with that given above. In the Hungarian Pharmacopœia the formula is as follows:

Oil of anise.....	3 grammes.
Alcohol [90 per cent., by volume]	75 grammes.
Ammonia water [10 per cent.]... ..	20 grammes.

Dissolve the oil in the alcohol and add the ammonia water.

The British Pharmaceutical Codex gives the following formula:

Anethol	3.5
Ammonia water [10 per cent.].....	16.5
Alcohol.....	enough to make 100.0

Dissolve the anethol in 80 parts of alcohol, add the ammonia water, and as much more alcohol as is required. The parts are by measure.

None of the official formulas calls for stronger ammonia water.

Scale Salts of Iron in Acid Mixtures.—J. O. F., Illinois, has had trouble with the following prescription:

R Syr. hypophos. comp.	
Elixir I. Q. & S.....	aa $\bar{\text{z}}$ iii

Upon mixing the two preparations a light-green clear liquid resulted. The mixture was returned by the purchaser twenty-four hours later, at which time it had the appearance of lead water; no precipitate was deposited. The syrup was made according to the official process; the elixir consisted of 1 ounce of iron and quinine citrate, and 1 grain of strychnine sulphate in sufficient "simple" elixir to make 1 pint.

Although the scale salts of iron are very frequently prescribed in combination with one of the phosphorus acids, it is a well-known fact that, with the exception sometimes of meta-phosphoric acid, these acids precipitate the iron. This trouble is enhanced by the presence of alkaloidal salts. In the mixture under consideration the only procedure that would tend to give relief is to dissolve about 2 drams of sodium chloride in the elixir. An elixir made with tincture of iron citro-chloride as directed in the National Formulary process will usually mix clearly with compound syrup of hypophosphites. A more elaborate note on the troublesome iron-acid-alkaloid combination appears in the CIRCULAR for February, page 79. Patients getting mixtures of this class should be advised not to take any of the medicine if the liquid becomes cloudy for the reasons given in the second preceding note.

Freckle Eradicators.—L. G., New York, wants "the best and noninjurious formula, internal or external, for removing summer freckles."

Were our advice sought by persons who did not adhere to the old belief that "freckles is a sign of health" and who wished to be separated from their ephelides without parting with their epidermis it would be that they enlist the services of a trained physician and dermatologist. Particularly should we point out to them the harmfulness of the majority of the proprietary bleaches and the newspaper prescriptions containing corrosive sublimate.

Even the authorities differ as to the best eradicator for freckles, some favoring diluted solutions (3 per cent.) of lactic or other organic acid, while others, including Joseph, say that alkalies are particularly useful in this connection, and suggest diluted solutions of potassium carbonate. Creams containing cucumber juice or 30-per cent. solution of hydrogen dioxide are extolled by some dermatologists (see the CIRCULAR for February, 1910, page 62); and mixtures of sulphur and liniment of soft soap are in favor. Seemingly it is a case of paying your money and taking the professor-doctor's choice.

Druggists should ply their own vocation, and leave to the "beauty doctor" the questionable practice of disfiguring faces in an attempt to improve upon nature. As an altruist the drug man might advise the use of grandmother's remedy, buttermilk and horseradish, or lemon juice. Formulas for several simple lotions appear in the CIRCULAR for June, 1909, page 288.

Hagee's "Cord. Ext. Ol. Morrhuæ Comp."—E. R., California.—All that we know about the composition of this preparation is that in the advertising addressed by the proprietors to the medical profession the cordial is said to represent in each fluid ounce "the extract obtainable from one-third fluid ounce of cod liver oil (the fatty portion being eliminated), 6 grains calcium hypophosphite, 3 grains sodium hypophosphite, with glycerin and aromatics." Elsewhere we have seen it stated that the alcoholic content of the cordial is 8 per cent.

From a note on the subject of "Tasteless Cod Liver Oil Compound," by H. G. Posey, in the CIRCULAR for July, 1909, page 350, we quote the following formula which is representative of this class of cod liver preparations:

Gaduol	2½ pints.
Oil of orange peel.....	9 ounces.
Fuller's earth.....	10 pounds.
Port wine.....	17 gallons.
Compound tincture of gentian....	5 pints.
Fluidextract of wild cherry.....	2½ gallons.
Glycerin	5 gallons.
Extract of malt.....	4 gallons.
Compound syrup of hypophosphites	6¾ gallons.
Fluidextract of licorice.....	1¼ gallons.
Caramel	2½ pints.
Alcohol	2½ gallons.

A more elaborate formula calling for guaiacol, creosote and eucalyptol, with working directions, appears in the CIRCULAR for June of the same year, page 293.

It will be noticed that there is no cod liver oil called for by these formulas, it being replaced with its so-called "active constituent" gaduol. While such a compound affords the votaries of "elegant" medicine

a fully grasped opportunity, its efficiency, if any, might possibly justly be attributed to some one or more of the various remedial agents other than the gaduol, which it contains. To label such a combination a cod liver oil preparation would constitute misbranding under the federal food and drugs law, as well as under the laws of many States.

Castoria.—G. D. C., Florida.—As we have at various times hitherto stated in these columns, castoria is one of the few "patent" medicines that ever has really been patented. The preparation was for a time protected by letters patent number 77,758, dated May 12th, 1868, issued to Samuel Pitcher. According to the specifications of the patentee, the formula for castoria is:

Senna leaves.....	20 pounds.
Sodium bicarbonate.....	2 ounces.
Essence of wintergreen.....	5 pounds.
Extract of taraxacum.....	1 pound.
Sugar	50 pounds.
Water	10 gallons.

The details of the manufacture of the medicine are given in a copy of the specifications appearing in the CIRCULAR for May, 1906, page 172. In brief the process is to make an extract of the senna in hot water in which the sodium bicarbonate has been dissolved, and to add the other things to this liquid.

A note on the legal status of the name castoria, now that the patent on the preparation has expired, appears in the CIRCULAR for November, 1909, page 588.

Micajah's Medicated Uterine Wafers.—"Physician," New Jersey.—In the *Journal of the American Medical Association* for March 26th, 1910, appeared a report by W. A. Puckner and W. S. Hilpert, of the chemical laboratory of the association, giving a detailed account of an analysis of Micajah's uterine wafers, together with some pertinent comment upon the disparity between the advertised claims for the nostrum and the conclusions to be drawn from the result of the analysis. This report with additional details of the analytical methods employed is reprinted in volume 3 of Reports of the Chemical Laboratory of the American Medical Association which may be obtained from the association at a nominal price and should be read by every physician and pharmacist as well. Reference was made to the report on Micajah's wafers in the CIRCULAR for June, 1910, page 288. From the reprinted report we quote the following:

Micajah's uterine wafers as found on the market are white, hexagonal tablets, odorless and possessing an astringent taste. The wafers are soluble in water with extreme difficulty. Hot hydrochloric acid and alkali hydroxides dissolve the powdered tablets readily, leaving a slight residue which under the microscope and by physical tests was identified as lycopodium.

The acid solution of the wafers responded to qualitative tests which indicated the presence of potassium, sodium, aluminum, sulphate, borate, and a mere trace of fatty material. Quantitative estimations of boric acid, aluminum, sulphate, sodium, and potassium were made, which indicated that Micajah's uterine wafers consist of alum more or less anhydrous or "burnt," boric acid, and borax in approximately the following proportions:

Alum, dried.....	59.86 per cent.
Borax, dried.....	15.62 per cent.
Boric acid.....	5.67 per cent.
Water of hydration.....	18.85 per cent.

The average weight of the tablets is 0.7791 gramme (11.8 grains) and, allowing for the fact that the quantity of water present in commercial exsiccated alum varies,

each tablet would contain approximately 0.4986 gramme (7.8 grains) of burnt alum; 0.2337 gramme (3.6 grains) of crystallized borax, and 0.0467 gramme (0.7 grain) of boric acid.

Relative to the harmfulness of the preposterous claims made in the advertising of this nostrum the report contains the appended comment, the truth of which should be inwardly digested by every physician and pharmacist, and by them inculcated widely among their patients. The report reads:

That such simple astringents and feeble antiseptics as alum, borax and boric acid could have such remarkable curative effects on uterine diseases is absurd. The serious aspect of the matter is, that, by the encouragement given them in the advertising literature to treat themselves, women may neglect proper surgical or medical attention in the early stages of serious diseases such as cancer or dangerous pelvic infections, until they get beyond the hope of proper management. But when nostrum promoters urge the use of such inefficient remedies in the treatment of gonorrhea, it is time to look at the matter seriously. Considering the vital social significance of the venereal disease, the employment of useless remedies can only favor the spread of these infections, which cause such a large proportion of the diseases which afflict women particularly.

Angostura Bitters.—J. J. Z., Porto Rico.—Several formulas for carminative bitters containing angostura bark have been given in these columns during the past decade. The following combination is typical:

Angostura bark.....	16 parts.
Bitter orange peel.....	8 parts.
Canada snakeroot.....	8 parts.
Serpentaria	8 parts.
Cinchona	8 parts.
Gentian	4 parts.
Calamus	4 parts.
Galangal	4 parts.
Cardamom	2 parts.
Cloves	1 part.
Mace	1 part.
Coriander	1 part.
Cinnamon	1 part.
Alkanet	2 parts.
Alcohol	100 parts.
Water	60 parts.

The drugs, reduced to a moderately fine powder, are macerated for several days moistened with some of the menstruum and then extracted by percolation.

Trade-mark rights to the name "angostura" are claimed by the house of Siegert, the contention being that the bitters of that firm is not so called because angostura bark enters into its composition but because the preparation was originated at Angostura. There have been several court decisions in support of the Siegert claim, and the word "angostura" has of late been deleted from the titles of several other brands of bitters.

How Is Pumice To Be "Well Washed"?—C. W. S., New York, asks: "In the National Formulary process for solution of ginger it is directed to use 'pumice, in fine powder, and well washed'; how is it intended to be washed?"

For the purpose stated we are satisfied with powdered pumice washed by being shaken for a few moments with two lots of water, each about five times the bulk of the powder. The water is decanted from the powder; after the second shaking the powder is dried on a piece of filter paper.

We should like to be told how our readers "well wash" pumice. To the members of the N. F. revision committee and of the committee on unofficial standards of the American Pharmaceutical Association this request is especially directed.

Platt's Chlorides.—A. I. M., New York.—Some years ago Dr. Adolph Tscheppe contributed to the *Pharmaceutische Rundschau* a formula based on an analysis of Platt's chlorides, which is as follows:

Aluminum sulphate.....	6 ounces.
Zinc chloride.....	1½ ounces.
Sodium chloride.....	2 ounces.
Calcium chloride.....	3 ounces.
Water.....	enough to make 2 pints.

The following somewhat more elaborate formula for a preparation said to resemble the proprietary article is taken from an earlier issue of the CIRCULAR:

Zinc in strips.....	4 ounces.
Lead carbonate.....	2 ounces.
Chlorinated lime.....	1 ounce.
Magnesium carbonate.....	½ ounce.
Aluminum hydrate.....	1½ ounces.
Potassium hydrate.....	½ ounce.
Hydrochloric acid.....	16 ounces.
Water	16 ounces.
Whiting	enough.

First dissolve the zinc in the acid, then add the other salts singly in the order named, letting each dissolve before the next is added. When all are dissolved add the water to the solution, and after a couple of hours add a little whiting to neutralize any excess of acid; then filter.

It may be added that zinc chloride ranks very low among disinfectants, its efficiency even as an antiseptic ceasing with dilution below about 1 in 500, and that the use of such solutions as these, by giving a false sense of security from disease germs may be the means of spreading rather than of checking the spread of sickness.

More extended articles on the subject of the disinfectant value of the chlorides appear in the CIRCULAR for September, 1908, page 431; and for March and April, 1904, pages 49 and 71.

So far as we are able to learn, Platt's chlorides was never the subject of a patent. The name of the preparation is the subject of a trade-mark granted March 6th, 1906, to Mary E. Platt.

Cascara Laxative Lozenges.—H. D. G., Pennsylvania.—In the Standard Formulary it is stated that *cascarets* are said by the manufacturers to contain cascara sagrada and senna combined with aromatics, each tablet representing 10 minims of fluidextract of cascara sagrada. That is the full extent of our knowledge of the composition of the preparation.

Pharmacists, like explorers in other fields, are too often prone to go far from home to find a starting place from which to strike out toward an accomplishment. It seems to us that were we contemplating the construction of a formula for a laxative preparation to contain cascara sagrada and to take the form of a lozenge, we should look about us and cultivate a closer acquaintance with *confectio sennæ* U. S. P. because in the formula for that preparation there are large possibilities in the way of a pleasing medication of a laxative nature. The addition of extract of cascara sagrada to the confection is not a task call-

ing for superior attainments on the part of the compounder. A moment's consideration of the U. S. P. monograph will lead to the conclusion that the careful application of a gentle heat to the mass would reduce it to the proper consistency. And a bit of reflection will show that the oil of coriander should not be added to the mass until after the heating is completed, and that perhaps the addition of about 2 per cent. of extract of licorice and a reduction in the amount of sugar would be beneficial.

Tooth Paste.—F. E. McKarny, Illinois, contributes the appended formula for a tooth paste which he has found very satisfactory:

Precipitated chalk.....	8 ounces.
Powdered castile soap.....	1 ounce.
Sodium benzoate.....	1 dram.
Saccharin.....	4 grains.
Oil of wintergreen.....	15 minims.
Oil of peppermint.....	15 minims.
Oil of clove.....	15 minims.
Oil of cinnamon.....	15 minims.
Menthol.....	5 grains.
Thymol.....	5 grains.
Zinc sulphocarbolate.....	1½ drams.

Glycerin, a sufficient quantity to make a mass, secundum artem.

We thank Mr. McKarny for the interest he takes in the Notes and Queries department and trust that he may frequently be a contributor to its usefulness. Even though we should prefer a dentifrice less active bactericidally and hence less destructive to the beneficial buccal flora, an antiseptic preparation has its uses.

Preparing Kefir.—M. B., Pennsylvania.—In the CIRCULAR for November, 1909, page 586, we quoted from a paper on this subject read by Thomas J. Keenan before the Kings County (N. Y.) Pharmaceutical Society, as follows:

1. Take of kefir fungus, 2½ drams, soak in a mixture of milk and water, equal parts (sufficient to cover the kefir), for four hours, pouring off and renewing at intervals of one hour, keeping the mixture at a temperature of 80° F.

2. The washed and moist fungus, now in a softened condition, is enclosed loosely in a piece of sterilized gauze and added to one quart of pasteurized milk heated to a temperature of from 80° to 85°. The milk with the kefir is allowed to stand, the same temperature being maintained, for from twelve to fifteen hours, or until curdled. The cream is then removed and the curd separated and allowed to drip until fairly dry, when an equal weight of sugar of milk is added and the whole spread thinly upon gauze, or upon a fiberless filter paper, and allowed to dry in a current of warm air at a temperature of not over 80° F. The mixed substance is then powdered gently and put up in dry, sterilized 1-ounce wide-mouthed vials, bearing some such label as the following:

Directions for Use.

To one quart of milk diluted with half a pint of water add a pinch of salt and a level teaspoonful of the ferment powder. Keep at a temperature of 85° F. for twelve to fifteen hours, shaking or stirring as often as convenient; then bottle and keep on ice.

The author suggested that before bottling and sending out the powder the pharmacist make a control experiment, in order to satisfy himself of the activity of the product and the quality of the milk. This could be done, he said, by taking three bottles of milk and putting into one a pinch of the ferment, into another a pinch of sugar, and leaving the third bottle without any added substance, when if the powder was of the desired activity the milk containing the ferment would be completely curdled at the end of twelve or fifteen hours.

The kefir fungus is obtainable in the general market.

In 1907 Prof. I. V. S. Stanislaus read a paper on the history, chemistry and manufacture of kefir at the meeting of the American Pharmaceutical Association (see the Proceedings for that year, page 465), in which he said:

The following points should be observed in the preparation of kefir: The milk should be fresh, previously skimmed and boiled; the latter condition is imperative to prevent butyric fermentation. It is also advantageous to sometimes add a teaspoonful of lactose to the milk, as in this wise more alcohol and CO₂ are formed and the albuminous bodies undergo peptonization much more readily. Good kefir should be a homogeneous, viscous fluid not readily separating into two layers. Ferrated kefir for anemics is prepared by adding to each bottle 0.1 gramme of ferric lactate. Pepsinated kefir is made by adding 0.75 gramme of powdered pepsin to each bottle.

In *Merck's Report* (xviii, 141) is an article on soured milk, by F. W. Gamble, reprinted from the *Pharmaceutical Journal*, in which appears information concerning the bacilli causing the fermentation of milk, resulting in *yoghourt*, *leben*, and the other milk preparations. Under the title "Fermented Milk" the National Formulary gives some directions for making *kumys* and *kephir-kumys*. In the CIRCULAR for April, page 202, there is a note on "Sour Milk and Longevity" in which Prof. Elie Metchnikoff is quoted at length, and in the issue for January, 1908, page 27, is a note entitled "Metchnikoff on Sour Milk." German to this subject is the brief note on *matzoon* in the CIRCULAR for January, 1906, page 18.

Brass Polish.—W. R. D., Pennsylvania.—When you addressed your query to us you had not yet received your copy of the May issue of the CIRCULAR, on page 256 of which there is given a formula for a polish that we feel sure will answer your purpose, and reference is made to a number of previous issues in which other formulas had appeared. The polish represented by the formula on page 207 of the April CIRCULAR is an excellent one for badly tarnished metal.

If you will acquaint us with any shortcomings you find in any of the formulas referred to we shall endeavor to remedy the defects.

Benzole Benzoate.—J. R. S., Indiana.—Benzyl benzoate, sometimes referred to as benzole benzoate, is benzoic acid benzyl ester existing naturally in benzoin but usually prepared synthetically. It has been used in medicine, and recently has come into quite extensive use in the manufacture of synthetic perfumes, being particularly well adapted as a solvent for artificial musk.

Dealers in perfumery materials and wholesale druggists, generally, can supply this solvent.

Formulas for Hair Tonics.—W. K., New York.—A *Sanitary Bulletin* of the New Hampshire Board of Health issued under date of April, 1907, contained a deal of information about the composition of preparations for the hair. This information was reprinted in the CIRCULAR for September, 1907, page 589.

Sodium Salicylate and Ferrous Sulphate.—W. E. B., Maine.—The red color you observed was doubtless due to the purple tint of the iron salicylate formed by the interaction of the two salts modified by the presence of an oxide of iron.

About "Sebidella."—G. H. Schone, Maryland, writes:

I notice in your Notes and Queries column (last month's CIRCULAR, page 253) that E. L. P., New Hampshire, wants to know what to dispense for "sebidella." Having had years of experience in one of the oldest German drug stores in Baltimore, I have always been instructed to dispense one of the hellebores in powder, with never a "come-back." If this will help E. L. P. out of his trouble he is welcome to it.

In thanking Mr. Schone for the interest he has taken in this matter we are certain that we speak for E. L. P. and many others of our readers. Mr. Schone refers to himself as an "old-timer"; we hope he will oftentimes give the readers of the CIRCULAR the benefit of his long experience.

Doubtless hellebore would prove satisfactory in the matter of destructiveness.

As with *sabadilla* there is danger of this poison's being absorbed to a dangerous extent. And we fancy that the sternutatory properties of hellebore would be much in evidence in the vicinity of a surface dusted with the powder.

A British Prescription.—L. W. L., New Jersey.—We should interpret the prescription you submit as follows:

Compound syrup of hypophosphites.

Easton's syrup.

Parrish's syrup, of each, equal parts.

These three syrups are very popular preparations with the British medical men, although the prescribers usually designate them by their modern Latin titles, thus:

Syrupus hypophosphitum compositus.

Syrupus ferri phosphatis cum quinina et strychnina.

Syrupus ferri phosphatis compositus.

We append the formulas of the British Pharmaceutical Codex for the respective preparations (the parts are by weight for solids and by measure for liquids).

Compound Syrup of Hypophosphites B. P. C.

Calcium hypophosphite.....	1.000
Manganese hypophosphite.....	0.500
Potassium hypophosphite.....	0.500
Quinine hypophosphite.....	0.250
Strychnine.....	0.012
Refined sugar.....	70.000
Hypophosphorous acid.....	0.625
Strong solution of iron hypophosphite.....	5.000
Chloroform water, sufficient to produce.....	100.000

Dissolve the calcium, manganese, potassium, and quinine hypophosphites in 40 of chloroform water, add the strychnine previously dissolved in the hypophorous acid, mix, and add the strong solution of ferric hypophosphite, then add the sugar, dissolve without the aid of heat, make up to 100 with chloroform water, and strain through flannel. The product is a pale, bright-yellow liquid, with a very slight acid reaction.

The strong solution of iron hypophosphite is made as follows:

Strong Solution of Iron Hypophosphite B. P. C.

Solution of ferric sulphate.....	14.20
Solution of ammonia.....	23.00
Citric acid.....	7.60
Sodium hypophosphite.....	9.60
Sodium citrate.....	6.60
Distilled water, a sufficient quantity.	
Chloroform water (1 in 200), sufficient to produce.....	100.00

Dilute the solution of ammonia with an equal volume of distilled water, gradually add the solution of ferric sulphate previously diluted with an equal volume of water,

wash the precipitated ferric hydroxide by decantation with distilled water till free from sulphates, collect on a calico filter, drain and transfer the moist precipitate to a porcelain dish; add the citric acid and 20 of distilled water, heat over a water-bath, with occasional stirring, until a clear solution results, then add the sodium hypophosphite, continue the heating on the water-bath with stirring for about one minute, or until a clear greenish solution is obtained, add the sodium citrate, filter, and pass sufficient chloroform water (1 in 200) through the filter to make up the required volume.

Solution of Ferric Sulphate B. P. C.

Solution of ferric sulphate is prepared by diluting 6.75 of sulphuric acid with 90 of water, and dissolving 72 of ferrous sulphate in the mixture by the aid of heat; then diluting 6.75 of nitric acid with 18 of water, warming, adding the solution of ferrous sulphate, and boiling until, after the sudden evolution of ruddy fumes, the liquid becomes red. The product should be tested for the presence of ferrous salt, and, if any remain, a little nitric acid should be added, the liquid boiled, and sufficient distilled water added to produce 99 by volume.

The solution is a dark-red liquid with a very astringent taste.

Compound Syrup of Ferrous Phosphate B. P. C.

Iron, in wire.....	0.40
Concentrated phosphoric acid.....	7.50
Precipitated calcium carbonate.....	1.35
Potassium bicarbonate.....	0.01
Sodium phosphate.....	0.01
Cochineal.....	0.35
Refined sugar.....	70.00
Orangeflower water.....	3.00
Distilled water, sufficient to produce.....	100.00

Dissolve the iron wire by a gentle heat in a mixture of 5 of concentrated phosphoric acid and 3 of distilled water, performing the operation in a flask plugged with cotton-wool, and keeping the iron completely covered by the liquid. Cool the solution and add it to a mixture of the calcium carbonate with 2.5 of the phosphoric acid and 10 of distilled water; then add the potassium bicarbonate and sodium phosphate, filter, and set aside. Next, boil the cochineal with 37.5 of distilled water, filter, and pour over the filter a sufficient quantity of distilled water to produce 35 of filtrate. Dissolve the sugar in this filtrate by the aid of heat, strain, and cool; then add the iron phosphate solution, and the orange flower water, with sufficient distilled water to produce 100.

Syrup of Phosphate of Iron with Quinine and Strychnine B. P. C.

Iron, in wire.....	0.86
Concentrated phosphoric acid.....	6.25
Strychnine, in powder.....	0.057
Quinine sulphate.....	1.48
Syrup.....	70.00
Distilled water, sufficient to produce.....	100.00

Mix the acid with an equal volume of water, place in a flask with the iron wire, plug the neck of the flask with cotton-wool, and heat gently until solution is effected. Mix the quinine sulphate and strychnine in a mortar with 20 of distilled water, then add the solution of phosphate of iron, dissolve, filter into the syrup, and pass sufficient water through the filter to produce the required volume. The syrup should be stored in small bottles which are quite full.

Doubtless your physician could be convinced that there are preparations official in this country which may replace the British three-syrup combination. We suggest that you direct his attention to compound syrup of hypophosphites U. S. P., syrup of the phosphates of iron, quinine and strychnine U. S. P., and compound syrup of the phosphates N. F.

Methylene Blue Stains.—M. B., Pennsylvania.—Preventive rather than remedial methods are indicated in considering the removing of methylene blue stains from the skin or from utensils. In a note that has gone the rounds of the drug press it is stated that if talcum powder be rubbed over the stains on the hands and then washed off with water the stains disappear. But this does not always work out in practice. How-

ever, one can prevent the stains acquiring permanency by keeping the hands covered with talcum powder while handling the blue and washing in water immediately after the work is finished. Practically the only safe method of removing the stains is by continued washing with alcohol. Although the dye is more readily soluble in water than in spirit, the alcoholic solutions seemingly have less affinity for the skin, as water serves only to spread the stain.

Alcohol may be used to remove the dye stains from mortars and pestles, but as these utensils will permit more heroic treatment the stains may be eradicated more rapidly by using chlorinated lime and powdered pumice, followed with solution of sodium hydroxide.

A Problem in Percentage.—M. S. G., Pennsylvania, writes: "How much alcohol should be added to 5 gallons of a liquid to make it a 20 per cent. alcoholic strength?"

As it is practically impossible to add any alcohol to a given quantity of a liquid without increasing the volume of the total liquids, it is obvious that the amount of alcohol to be added must be proportionate to the volume of the finished product. Assuming that the 5 gallons of liquid contains no alcohol, the amount of spirit required is 20 per cent. of the finished product (allowing nothing for shrinkage), and by difference the original 5 gallons is 80 per cent. of the finished product. Hence the amount of alcohol required is one-fourth of 5 gallons or $1\frac{1}{4}$ gallons. To prove this: 5 gallons plus $1\frac{1}{4}$ gallons equals $6\frac{1}{4}$ gallons, 20 per cent. of which is $1\frac{1}{4}$ gallons. Q. E. D.

Adrenalin Solution with Alkaloidal Salts.—L. P. B., Georgia.—Because of the unstable nature of solution of adrenalin chloride its prescribing in complex mixtures is to be guarded against. The solution however behaves quite well in simple solutions of alkaloidal salts except those forming insoluble chlorides.

In the prescription which you submit—

R Sol. adrenalin chlor. (1-1000)..... 3 iss.
Berberine sulph..... gr. i.
Cocaine mur..... gr. i.
Glycerin..... 3 ii.
Aqua camphoræ..... 3 i.
Aqua destillata q. s..... 3 i.

M. Sig.: Drop in eyes 3 or 4 times daily.

berberine hydrochloride is formed and precipitated. This salt is very slightly soluble, particularly in an acid solution, and the solution of adrenalin chloride is slightly acid. A further trouble with this mixture exists because of the fact that the berberine will take up the free acid of the solution and leave the adrenalin more liable to oxidation; this may result in the darkening of the solution. But the precipitate will contain only berberine salts, the rest remaining in solution.

Hydrastine hydrochloride would be a better agent than a berberine salt in this combination. With this will be formed a clear (colorless) solution, there being no incompatibilities. This substitution should not be made except with the knowledge and consent of the prescriber. It is reasonable to believe that the physician would welcome a suggestion that would certainly be for the benefit of his patient.

Rather than filter any prescribed medicament in which a precipitate has formed, we should decline to compound the mixture without having consulted with

the prescriber. Filtration should be adopted with reluctance in any dispensing operation.

Veterinary Absorbent Liniment.—J. H. S., New Hampshire.—So far as we have any information the composition of *absorbine* has never been divulged for the benefit of the public. Formulas, however, for absorbent liniments of more or less efficacy are very common.

Formula 1 below has never before been published; the preparation it represents is said to have proved valuable in the hands of experienced operators. The other formulas are taken from earlier issues of the CIRCULAR.

I.

Extract of belladonna.....	2 grammes.
Diluted alcohol.....	5 c.c. (mils).
Camphor	60 grammes.
Oil of wormwood.....	60 c.c. (mils).
Oil of sassafras.....	60 c.c. (mils).
Sesame oil, enough to make...	1000 c.c. (mils).

Dissolve the camphor in the sesame oil by displacement, suspending the crushed camphor in a gauze bag just below the surface of the oil in a closed container. Triturate the extract with the diluted alcohol until a soft homogeneous mass is produced; gradually add to this the camphor-oil solution. Finally add the volatile oils.

II.

Spirit of camphor.....	1 pint.
Tincture of capsicum and myrrh...	12 ounces.
Oil of turpentine.....	12 ounces.
Linseed oil.....	4 ounces.
Crude petroleum.....	24 ounces.
Oil of amber.....	2 ounces.
Oil of origanum.....	3 ounces.
Barbadoes tar.....	$1\frac{1}{2}$ ounces.

III.

Sulphuric acid.....	1 oz. av.
Croton oil.....	1 fl. oz.
Corrosive mercuric chloride.....	60 grains.
Oil of turpentine.....	6 fl. ozs.
Camphor	$\frac{1}{2}$ oz. av.
Cottonseed oil.....	8 fl. ozs.

Mix in an evaporating dish the oil of turpentine and the croton oil; add the corrosive sublimate in fine powder and the camphor, and dissolve; then add, a little at a time, the sulphuric acid, taking care that the mixture does not become too hot, and, when all has been added and the mixture has become cool, add the cottonseed oil, and mix thoroughly.

A few of the many issues of the CIRCULAR in which those thoughtful ones who preserve their copies in an accessible manner may find other formulas for veterinary liniments of the absorbent sort are January, 1911, page 19; March, 1910, page 118; December, 1909, page 635; and November, 1907, page 735.

"Cure" for Colic in Horses.—A. I. M., New York.—Permit us first to quote from Diseases of the Horse, a publication of the United States department of agriculture which may be obtained in cloth binding for sixty cents. Referring to colic the authors of the chapter on diseases of the digestive organs say:

The disease of the horse that is most frequently met with is what is termed "colic," and many are the remedies that are reported to be "sure cures" for this disease. Let us discover, then, what the word "colic" means. This term is applied loosely to almost all diseases of the organs of

the abdomen that are accompanied by pain. If the horse evinces abdominal pain, he is likely to be put down as suffering with colic, no matter whether the difficulty be a cramp of the bowel, an internal hernia, overloading of the stomach, or a painful disease of the bladder or liver. Since these conditions differ so much in their causation and their nature, it is manifestly absurd to treat them all alike and to expect the same drugs or procedures to relieve them all. Therefore it is important that the various diseased states that are so roughly classed together as colic shall so far as possible, be separated and individualized in order that appropriate treatments may be prescribed.

The subject is continued with a description of engorgement, obstructive, tympanitic, spasmodic, and worm colics, their symptoms and treatment. Engorgement colic is usually fatal. In the other forms the indicated remedies are such as will overcome the flatulence, ease the pain, and excite excretory movements. A combination of carminatives and anodynes is generally the first-aid medicament, to be followed with an aloes ball, a saline draught, or an enema. Typical formulas for the emergency remedies are as follows:

I.

Compound spirit of ether.....	1/2 ounce.
Tincture of opium.....	1/2 ounce.
Infusion of anthesis.....	1 quart.

II.

Tincture of opium.....	1 ounce.
Tincture of ginger.....	1 ounce.
Spirit of nitrous ether.....	1 ounce.
Chloroform	1 ounce.

III.

Ether	1 1/2 ounces.
Tincture of opium.....	1 1/2 ounces.
Linseed oil.....	8 ounces.

Library Paste.—J. J. Z., Porto Rico.—A paste of the type indicated by this title may be made by simply dissolving white dextrin in about twice its weight of water heated to 160° F. Some antiseptic is required to preserve it. This paste is said to improve with age.

A few more elaborate formulas follow:

I.

Tragacanth in powder.....	20 parts.
White dextrin.....	10 parts.
Wheat flour.....	60 parts.
Glycerin	10 parts.
Cold water.....	40 parts.
Salicylic acid.....	3 parts.
Boiling water.....	400 parts.

Over the tragacanth pour 160 parts of boiling water, stir well and set aside. Mix the wheat flour and the dextrin with the cold water, stir in well, and then add the mixture to the tragacanth. Pour into the batter thus formed the rest of the boiling water, stirring constantly while doing so. Rub up the acid with the glycerin and add to the batter; put the mixture on the fire, bring to a boil, under constant stirring, and let cook for five or six minutes. Let cool and the paste is ready.

II.

Gelatin	50 grains.
Water	10 ounces.
Alcohol	1 ounce.
Oil of cloves.....	1 dram.
Wheat starch.....	enough.
Rice starch.....	enough.

Swell the gelatin in the water for a day, and heat gradually until solution is effected. Allow the solu-

tion to cool to a little below 70° F., and stir in enough of the starches, mixed in the proportion of 2 parts of wheat starch to 1 part of rice starch to produce a thin batter. Heat slowly in a double boiler until the mass thickens and continue the heating until the bulk is reduced about one-sixth, stirring constantly. Remove from the heat and stir in slowly the oil dissolved in the alcohol.

III.

Gelatin	4 ounces.
Water	2 pints.
Flour paste.....	2 pounds.
Solution of sodium silicate.....	1 ounce.
Oil of cloves.....	2 drams.

Soak the gelatin in 1 pint of water until softened, then dissolve with the aid of a gentle heat. While hot pour in the paste diluted with the rest of the water, and stir in the solution of silicate, while the mixture cools, using a wooden paddle. When cold beat in the oil.

Other formulas for pastes of this sort appear in the CIRCULAR for October, 1908, page 469, as well as many earlier issues.

Appeals to Readers.—Information is sought concerning the articles listed below. We ask for such help as our readers can give:

Sanford's Liver Invigorator.—F. E. S., Michigan.

Casler's Oriental Paste.—P. P., Illinois.

Fidol.—R. C., New York. Where may it be obtained?

Potassium Chlorate Tooth Powder.

The following is the formula of the Royal Dental Hospital (London):

Powdered soap.....	4 drams.
Sodium bicarbonate.....	2 drams.
Potassium chlorate.....	2 drams.
Powdered orris.....	4 drams.
Saccharin	8 grains.
Oil of peppermint.....	8 minims.
Oil of gaultheria.....	16 minims.
Precipitated chalk, enough to make.	8 ounces.

Eau Dentifrice.

Oil of spearmint.....	10.0 grammes.
Oil of anise.....	2.0 grammes.
Oil of star anise.....	2.0 grammes.
Oil of cloves.....	2.0 grammes.
Oil of cinnamon.....	1.0 gramme.
Oil of rose.....	0.1 gramme.
Tincture of benzoin.....	10.0 grammes.
Tincture of cochineal.....	8.0 grammes.
Alcohol (90 per cent.)	
enough to make.....	1,000.0 c.c. (mils.).

Creamy Furniture Polish.

Animal oil soap.....	1 ounce.
Solution of potassium hydroxide....	5 ounces.
Beeswax	1 pound.
Oil of turpentine.....	3 pints.
Water, enough to make.....	5 pints.

Dissolve the soap in the lye with the aid of heat; add this solution all at once to the warm solution of the wax in the oil. Beat the mixture until a smooth cream is formed, and gradually beat in the water until the whole is completely emulsified.

Missouri Board Questions.

Herewith are reprinted the questions used by the Missouri Board of Pharmacy at an examination held January 9th, 1911. Other sets of questions asked by this board appear in the issues of the CIRCULAR for December, 1909, page 643; November, 1908, page 576; June, 1907, page 424; and July, 1906, page 254. In all these the questions numbered fifteen and were not sub-divided into papers on "Pharmacy," "Chemistry," etc.

In reprinting board questions we endeavor to follow closely the nomenclature, spelling, punctuation and capitalization of the originals, our object being to give our readers, just as nearly as practicable, the questions as they were presented to the candidates.

Registered Pharmacist.

Pharmacy.

1. What is the difference between an Avoirdupois ounce and an Apothecary's ounce? How many 2 gr. Quinine Pills can be made from an ounce bottle of P. & W. Quinine? At 30 cts. an ounce what will 4 dz. of the pills cost?

2. Name 3 official Emulsions, and state how they are made. In addition to the above write out the formula for 8 ounces of 50% Emuls. Cod Liver Oil, each fluid drachm containing also 3 minims Oil of Turpentine. Give explicit directions how to prepare this Emulsion.

3. What are Fluidextracts? Name 3 official ones made with a strong alcoholic menstruum. Two where Acetic Acid is also used. And one where water alone is used as the menstruum.

4. What is meant by Potent medicines? Name 5 official Potent tinctures, and state their respective strengths. Name 2 official tinctures made by percolation; 2 by maceration; 1 by solution; and 1 by dilution.

5. Name the official Elixirs and give process of their manufacture. What are these galenicals used for?

6. What must Glycerine be sold for, a pint, if it costs 32 cts. a lb., and you wish to make a profit of 50%? Suppose your gross profit of the business is 75%, and your running expenses 25% of the sales, what must be your daily sales, if you make a net profit of \$9.00 a day?

7. If moist opium containing 10% morphine loses 20% of its weight when dried, what per cent. of morphine does it contain then? The loss of weight is moisture.

8. State how you would prepare the following:

R Potass. Chlorat.....gr. X
Acid Hydrochlori.....MX
Syrup Aurant.....3i
Aq. dest. qs. ad.....3viii

Mft. sec. art.

Sig. Half tablespoonful every 4 hours.

9. R Potass. Iodid.....3i
Adeps Lanae.....3i

M. ft. ungt.

Sig. Use locally.

R Hydrarg. Bichlorid.....gr. iii
Potass. Iod.....3ll
Syr. Feni Iodid.....3i
Ag. dest.....3i
Syrup simplicis qs. ad.....3vi

M ft. sol.

Sig. As directed.

What is the amount of Bichloride Mercury in each C. C. of this R?

10. R Potass. Permanganat.....gr. X
Ft. mass et div. in pil No. X.
Sig. One every 4 hours.

R Cresote.....MXX
Eucalyptol.....MXL

M ft. capsule No. 20.

Sig. One, 3 times a day.

In these last 2 prescriptions state explicitly how you would compound them.

Chemistry.

1. What is the difference between Organic and Inorganic Chemicals? Name 5 of each group.

2. State the difference between Ethyl, Methyl and Denat-

ured Alcohol. Is there any law regulating the sale of them? If so, what is it?

3. Name 5 official coal-tar derivatives, giving their medical properties and doses.

4. What do the following symbols stand for: HI, HBO₃, HCN, H₃PO₄, CHCl₃, C₂H₅OH, C₂H₆O, CaCO₃, NH₄Br, H₂O₂?

5. In making Spts. Minderari what chemical action takes place? Demonstrate by means of the chemical symbols.

6. What are the chemicals used in making Fowler's Solution? State how the reaction takes place.

7. What is Diluted Hydrocyanic Acid, and how is it made? What is its strength, and average dose?

8. What is the chemical name for Lime? What is its symbol? When water is mixed with Lime, what occurs?

9. What is the chemical name for Prepared Chalk? That of Precipitated Chalk? Write the symbol of each. What is their medical property and dose?

10. Write the chemical name, and symbol of each of the following: Red Precipitate, Corrosive Sublimate, Blue Vitriol, White Vitriol, Calomel, Oil of Vitriol, White Precipitate, Green Vitriol, Alcohol, Water.

Materia Medica.

1. What is the difference between physiological and therapeutical property. Give an illustration in each case.

2. How are plants classified by the botanist? Name 2 official drugs, belonging to the N. O. Umbelliferae. Two to the N. O. Composetae.

3. What medicines are obtained from milk? What from the hog? From the fish? From insects?

4. What is meant by the term poison? Can one be poisoned other than by the mouth and stomach? If so, how?

5. Name an official drug and its habitat of the following: a root; a rhizome; a tuber, a bulb; a wood; a bark; an herb; a leaf; a fruit; a seed.

6. Describe Gentian root, giving its habitat and medicinal properties. Name 2 official preparations containing it.

7. Where does Cinchona grow naturally? What is its medical properties and dose? Name two of its alkaloids, and state their doses.

8. What is Theobromo? Kino? Terebinthina? Crocus? Amylum?

9. Name 5 crude drugs that are imported into this country, stating where from. Also name 10 official crude drugs, indigenous to Missouri.

10. Name 5 derivatives from coal-tar. Is Creosote obtained from coal-tar or from other sources? State its average dose and medical property.

Assistant Pharmacist.

Pharmacy.

1. What is Pharmacy? Name 3 text-books that should be in every pharmacy?

2. What is the U. S. Pharmacopœia? What is a Dispensatory?

3. Under the present laws of this State what are the requirements to become an Assistant Pharmacist? What those for a Registered Pharmacist?

4. What are the restrictions in selling poisons?

5. Reduce the following to grains: 1 Pt. Distilled Water, 3½ ounces Quinine Sulphate, Glycerine 3xii, 1 Liter Ether.

6. What is the difference between a Syrup and an Elixir? Name 3 official ones of each.

7. What is an Emulsion? Name 2 official ones, giving method of preparation. Is milk an Emulsion? If so of what?

8. How much Opium does each fluid drachm Paregoric represent? The same amount of Laudanum? What is the average dose of Morphine Sulph?

9. What is the official name of Sweet Oil? Of Foxglove? Of Brown Mixture? Of Fowler's Solution? Of Calomel?

10. Upon receipt of a lot of drugs and sundries, how do you proceed in getting them ready for sale? State accurately each step taken, until every item is accounted for, and the invoice ready for filing.

Chemistry.

1. What is Synthetic Chemistry? Analytical Chemistry? Give an illustration of each.

2. What is Specific Gravity? Give that of Water, Glycerine, Alcohol, Nitric Acid. How much does 1 pint Glycerine weigh? 1 Pint Ether?

3. State what is meant by the terms: Solid, Liquid, Gas. Name 3 elements of each?

4. Define the following terms: Fusion; Ignition; Reflection; Refraction; Boiling.

5. What are the freezing and boiling points of the Centigrade and Fahrenheit thermometer scales? Convert 40° Centigrade into Fahrenheit, and 60° F. into Centigrade.

6. Does heat contract or expand iron? How is this property of iron overcome in the construction of iron buildings or building of railroads?

7. Give the Apothecaries table of weights. What are the units of weight and measure of the metric system? How many grains in 4 oz. troy? How many C. C. in 2 fl. oz. water.

8. What is a Barometer? A Hydrometer? A Urinometer? What is the air pressure at sea level? Before a storm does the Barometer rise or fall? Why?

9. Describe Oxygen, and state how it is made? Combined with H. what 2 official drugs are formed? How is Chlorine made? Describe it. Give the symbol of Hydrochloric Acid (its molecular weight, and physical property?)

10. Name 2 metals, not compatible with water. What happens when they come in contact with water? How must these elements be kept? Give the name of an element that must be kept under water.

Materia Medica.

1. Define the following terms, and name an official preparation of each: Rubefacient; Vesicant; Caustic, Haemostatic.

2. Define the following terms, and give an example of each: Diuretic, Diaphoretic; Hypnotic; Narcotic.

3. What is Physiology? Name 5 organs of the human body, excluding those of the head, and state their respective functions.

4. What are the normal number of respirations of man each minute? Pulsations? Temperature?

5. What is meant by the term Toxicology? In an overdose of Belladonna, what is to be done? Explain the action of such an antidote.

6. State the maximum doses of the following: Arom. Sulp. Acid; Salicylic Acid; Ammon. Chlorid; Ammon. Carb.; Potass. Acet.; Potass. Iodid.; Mercuric Chloride; Chloral Hydrate; Tartar Emetic; Codeine Sulphate.

7. What are the antidotes in case of poisoning by Ipecac? By Aconite? By Capsicum?

8. What is Ergot, and how is it obtained? Give the source of the following: Rhubarb; Senna; Mace.

9. What is Botany? In what respect is a knowledge of it, useful to the pharmacist?

10. Name 8 different parts of plants, giving an official example of each.

Spelling and grammar were considered in rating the answers.

Answers to May Questions in Drug Store Mathematics.

1. \$0.343.
2. 7 dozen.
3. Yes; he would save 10 cents.
4. \$2.434.
5. 0.27 per cent. of alkaloids.
6. 10 per cent.
7. 6 ounces of lemon juice, 54 ounces of water.
8. 0.6335.
9. 1.759.
10. 3.27+ per cent.

In the answers to the April questions printed in last month's CIRCULAR, page 268, the decimal point in the first figures is an error; the clerk's net earnings are \$6970.00.

Recovery of Platinum from Wastes.

Blair (*Journ. Indust. and Engineering Chem.*) says that from alcoholic washings of platinum chloride the platinum may be completely separated as metal by allowing the solution to stand for some weeks in direct sunlight. The same reduction will take place in the water solutions of potassium chloroplatinate if a little alcohol is added.

Some Synthetic Scents.

The appended formulas are taken from La Parfumerie Moderne. The odorous compounds are adapted for the perfuming of soaps or creams, or by dilution with cologne spirit or benzyl benzoate as handkerchief extracts or toilet waters.

Bouvardia.

Oil of orange flowers.....	6.00 grammes.
Synthetic jasmine.....	1.25 grammes.
Muguet	2.50 grammes.

Fraise.

Tolu-ethyl acetate.....	3.0 grammes.
Oil of bergamot.....	1.0 gramme.
Synthetic ylang-ylang.....	0.2 gramme.
Artificial musk.....	0.2 gramme.

Iris.

Artificial violet.....	3.75 grammes.
Synthetic aubépine.....	1.00 gramme.
Rhodinol	0.25 gramme.

Heliotrope.

Vanillin	3.75 grammes.
Terpeneless oil of bergamot.....	1.00 gramme.
Oil of bitter almond.....	0.10 gramme.
Rhodinol	0.15 gramme.

Reseda.

Linalol	60.0 grammes.
Benzyl acetate.....	10.0 grammes.
Penyl-ethyl alcohol.....	20.0 grammes.
Duodecyl alcohol.....	0.5 gramme.
Artificial tuberosa.....	1.0 gramme.
Artificial cassie.....	8.0 grammes.
Natural jasmine.....	0.5 gramme.
Tolu-ethyl alcohol.....	65.0 grammes.

Extensive Poisoning by Hyoscyamus Niger.

Phillipi and Mühle (*Münch. med. Woch. through Med. Rec.*) report an instance of extensive poisoning by hyoscyamus niger in a food stuff. A number of people partook at once of roast meat, potatoes, and "blackroot." Within two hours all exhibited evidences of poisoning by some member of the solanaceæ family. Mydriasis was present. The "blackroot" (*scorzonera hispanica*) could not in itself be toxic, but was evidently mixed with or replaced by a weed containing hyoscyamus (*hyoscyamus niger*). This was apparently a result of careless harvesting, the blackroot having been accidentally mixed with the toxic plant. The symptoms induced were of the type caused by the solanaceæ, with the differential marks which distinguish hyoscyamus from other members of the group.

Determination of Lithium.

Murmann (*Zeit. anal. Chem. through Journ. Soc. Chem. Ind.*) says that lithium may be determined in a mixture containing its chloride, with chlorides of sodium and potassium, by extraction with pyridine, in which the latter salts are insoluble. The pyridine extract is evaporated to dryness, and a slight excess of dilute sulphuric acid is added to the residue, after which the mixture is again evaporated, and the sulphate finally ignited and weighed. A trace of lithium remaining with the chloride residue may be recovered by dissolving this in water, evaporating and again extracting with pyridine. The alkali chloride mixture must not be heated to redness, or very appreciable loss of lithium occurs.

Correspondence.

Short, timely articles upon subjects of interest to pharmacists are solicited for this department. In order to be in time for publication in the issue of a given month, they should be in the editor's hands on the fifteenth day of the month previous. Anonymous communications will not be published; but if the author expresses a wish to have his name withheld, this wish will be scrupulously regarded and his letter considered confidential.

College Students and Board Examinations.

Pittsburg, Pa., May 15th, 1911.

To the Editor of THE DRUGGISTS CIRCULAR:

Referring to the item in the CIRCULAR for last month, page 238, on college graduation and board examinations, I want to say in explanation that 119 applicants were examined at our February meeting, 63 for assistant's license, who were not graduates, and 56 graduates for pharmacist's license, 13 of whom were successful.

Of this failure the Philadelphia College of Pharmacy had 20 per cent. This college gives a doctor of pharmacy degree on a term of three years.

The Pittsburg College of Pharmacy had also a 20 per cent. failure; it gives a graduate in pharmacy degree on a term of two years.

The Pennsylvania Board of Pharmacy in adopting a standard for the recognition of pharmacy schools was obliged to take a stand, and adopted the 1100-hour course, to be taken in two years. Of these 1100 hours, 500 must consist of laboratory work. Some schools remonstrated, and in due course of time we discovered that some schools permitted a "rebate non-attendance" of 25 per cent. in time, and then complained because so many of their graduates failed to pass the board's test. And so we were obliged to exact a certification of *attendance* of at least 1100 hours.

It should be remembered that schools of pharmacy teach fundamental principles, and that the examination of pharmacy boards should be so directed as to ascertain if the individual can practically apply those fundamental principles when occasion demands.

Until more uniform methods are adopted for graduation by schools of pharmacy, we shall not get more uniform methods from pharmacy boards.

LOUIS EMANUEL.

[From the foregoing it would appear that the proportion of college graduates "plucked" by the Pennsylvania Board of Pharmacy at its February examination of applicants for first-class certificates was not 106 out of 119, or 89 per cent., but 43 out of 56, or about 77 per cent. This comparatively slight difference, however, does not affect the point we endeavored to make last month, namely, that there is seemingly a wide difference of opinion between some college examiners and some board examiners as to how much a young man should know before he is ready to follow the calling of a pharmacist. We are glad to publish Mr. Emanuel's letter and should be pleased to receive others on this subject from other board and college men, to the end that our last month's suggestion be made to bear fruit; the said suggestion being that we pharmacists ourselves locate the trouble and remedy it before the muck-raking lay press holds our inconsistencies up to the world's ridicule.—Editor THE DRUGGISTS CIRCULAR.]

Wood Alcohol Prescribed for Bathing.

Pennsylvania, May 21st, 1911.

To the Editor of THE DRUGGISTS CIRCULAR:

Is it right to use wood alcohol for sponging a sick child? What should the druggist do in this case if the doctor persists in prescribing it? "PUZZLED."

[Among those persons who have secured their knowledge in the school of practical experience—we refer to the workers in wood distilleries—there is a much-respected tenet that wood alcohol may not without danger be allowed to come in contact with the body above the waist-line. Painters and varnishers have a similar fear of this spirit and a greater fear of its vapors, which, it has at various times been reported, have affected grievously varnishers working in confined spaces. We reiterate here the unqualified opinion which we have voiced on many occasions, that the use of wood alcohol upon or near the body is attended with the risk of injury to the optic nerve. Conditions will largely influence the action to be taken by a druggist with regard to a prescription for wood alcohol for use on the body. He should refuse to dispense the spirit under any circumstances. Whether he should warn the person presenting the prescription, of the risk of danger the use of the spirit would entail would depend upon the position taken by the prescriber.

In this connection we have on a previous occasion quoted as follows from *Merck's Report*: "We cannot too strongly condemn the use of wood alcohol in any preparation whatever, intended for use either externally or internally. Numerous experiments and observations have shown that wood alcohol is exceedingly dangerous to the human being. Even small doses have repeatedly been known to cause partial to absolutely total blindness, and like results have been seen in cases where a person has been exposed only to the vapors of wood alcohol."—Editor THE DRUGGISTS CIRCULAR.]

Coffee Glaze Containing Arsenic.

Nottbohm and Koch (*Zeit. Unters. Nahr. u. Genusm.* through *Journ. Soc. Chem. Ind.*) says that shellac is one of the substances which are used for glazing coffee beans, and draw attention to the fact that shellac is sometimes colored by the addition of arsenic trisulphide. Samples of such colored shellac were found to contain from 0.0785 to 0.12 per cent. of arsenic. Coffee beans which had been glazed with arsenical shellac were found to be strongly contaminated with arsenic. The author is making inquiries as to whether shellac containing large quantities of arsenic is actually sold for the purpose of glazing coffee beans.

Compound Insect Powders.

I.

Powdered pyrethrum.....	14 ounces.
Powdered quassia.....	6 ounces.
Powdered white hellebore.....	2 ounces.

II.

Powdered pyrethrum.....	8 ounces.
Powdered colocynth.....	4 ounces.
Powdered white hellebore.....	16 ounces.

These powders are of especial value in combatting plant lice.

Notices of Books Received.

THE CHEMISTRY OF SYNTHETIC DRUGS. By Percy May, B. Sc. (Lond.) Octavo; cloth; xiii + 229 pages. \$2.25. London, and New York: Longmans, Green, and Co. 1911.

Because of the frequency with which the synthetic medicinal products are prescribed in combination with all sorts of organic and inorganic substances, often with the threatened loss of their therapeutic identity, it behooves the dispensing pharmacist to have a wide knowledge of the chemical structure of synthetics and the relation of structure to therapeutic effect. Something more than a good grounding in organic chemistry is needed; and to supply this something is the stated purpose of the author of the book under consideration. In this endeavor he has had recourse to much of the literature emanating from the large manufacturing concerns, and has drawn upon Frankel's *Arzneimittelsynthese*, a work not available in the English language.

As an idea of the nature of the book it may be said that the chapters deal with such subjects as The Effect of Various Elements and Radicles, The Chemical Changes of Drugs in the Organism, Alkaloids (general and group properties), Adrenaline and Other Derivatives of Ethylamine, Purine Derivatives and Uric-Acid Solvents, etc. The text is quite comprehensibly constructed, and by the plentiful use of graphic formulas the most abstruse subjects are greatly clarified.

NEW AND NONOFFICIAL REMEDIES, 1911; Containing Descriptions of the Articles Which Have Been Accepted by the Council on Pharmacy and Chemistry of the American Medical Association, prior to January 1st, 1911. Duodecimo; cloth; 282 pages. Chicago: American Medical Association. 1911.

With each succeeding yearly edition this semi-official book of pharmaceutical standards increases in value to pharmacist and physician. Two years ago, referring to the 1909 edition, we ranked the N. N. R. next to the Pharmacopœia and the National Formulary in usefulness; because of the more frequent revisions of the N. N. R. the information it contains, embracing about 1200 references, is more advanced than that of the official books.

New and Nonofficial Remedies may be obtained from the association at a price representing but a small fraction of its value.

PRACTICAL DIETETICS with Reference to Diet in Disease. By Alida Frances Pattee. Sixth Edition, revised and enlarged. Duodecimo; cloth; 527 pages. \$1.50. Mt. Vernon, N. Y.: A. F. Pattee. 1910.

To know that in seven years this work has reached its sixth edition is to get an idea of the popularity it enjoys. The subject is one of universal interest, and the practical nature of Miss Pattee's treatment of the subject makes the book a useful addition to the library of doctor, druggist, nurse and home.

REPORTS OF THE CHEMICAL LABORATORY OF THE AMERICAN MEDICAL ASSOCIATION; Volume 3, January to December, 1910. By W. A. Puckner, Director. Duodecimo; paper; 127 pages. Chicago: American Medical Association.

This third volume of these Reports continues the purpose of its predecessors to furnish in a convenient

style the results of the analytical work carried on under the auspices of the American Medical Association. The analyses have to do largely with nostrums and complex combinations of drugs, and, for this reason, the descriptions of the methods as well as the reported results are of more than ordinary interest to pharmacists.

FUNGICIDES AND INSECTICIDES; a Handbook for the Agriculturist, Giving a Short Description of the Various Fungous Diseases and Insects of Common Occurrence, Containing also Formulæ for the Preparation of Sprays, and Direction for Time of Spraying. Compiled by Arthur R. Maas. Duodecimo; flexible leather; 69 pages, illustrated. Los Angeles, Cal.: Braun Chemical Company.

The contents of this booklet are well summed up in the sub-title, which makes obvious to pharmacists the usefulness of the publication in their business. The information contained in the booklet has been compiled from authentic sources and is arranged in a manner conducive to ready reference.

DIE OFFIZINELLEN ÄTHERISCHEN ÖLE UND BAL-SAME. Zusammenstellung der Anforderungen der 14 Wichtigsten Pharmakopœen in Wortgetreuer Uebersetzung. von C. Rohden. Octavo; paper; 175 pages. Berlin: Julius Springer. 1911.

To the student of pharmacy who is able to read German this work affords an excellent opportunity to make comparisons of the requirements specified for essential oils, balsams and their official components in the pharmacopœias of America, Austria, Belgium, Denmark, England, France, Germany, Italy, Japan, Netherlands, Russia, Spain, Sweden, and Switzerland. The monographs are arranged in the alphabetical order of the Latin titles of the substances.

DIGITALIS STANDARDIZATION AND THE VARIABILITY OF CRUDE AND OF MEDICINAL PREPARATIONS. By Worth Hale. Bulletin No. 74, Hygienic Laboratory of the Public Health and Marine-Hospital Service of the United States. Octavo; paper; 53 + iv pages. Washington: Government Printing Office. 1911.

A pamphlet of timely interest to pharmacists and pharmacologists. Copies may be had on application to the office of the surgeon-general of the service.

CONSUMPTION CURE FAKES Reprinted with additions and Modifications from the *Journal of the American Medical Association*.

A valuable pamphlet which might well replace the "patent"-medicine almanacs and free teas and pills on the "Take one" counter of every drug store.

YELLOW FEVER; a Compilation of Various Publications; Results of the Work of Maj. Walter Reed, Medical Corps, United States Army, and the Yellow Fever Commissioner. Senate Document No. 822, Sixty-first Congress, Third Session. Washington: Government Printing Office. 1911.

A REPRINT OF THE REPORTS OF THE COUNCIL ON PHARMACY AND CHEMISTRY of the American Medical Association with the Comments That Appeared in the *Journal* during 1910.

DRUG STORE ADVERTISING

By M. P. GOULD, of New York

In this department some of the fundamentals of successful drug store advertising will be expounded each month. The aim is to correct errors of advertising and establish the most profitable and advisable methods of building up retail drug trade by means of the powerful influence of advertising.

Prescription Advertising.

This is to be a heart-to-heart talk about prescription advertising. At the head of this column, for a number of years, there has been the statement that in this department, each month, "fundamentals" of advertising and store management are considered.

Sticking to the text, first let us consider, what are some of the "fundamentals" of prescription advertising?

First Fundamental.

The first fundamental in prescription advertising is to make the store look like a prescription store. Some druggists ought to do more thinking, not necessarily more thinking in the same channels in which they now think, but more thinking in cross channels and in other channels. The first requisite of prescription advertising is a prescription store, and the first thing for a druggist to do, who is considering prescription advertising, is to leave his store, walk around the block and then come back and look at his store as a stranger would and note whether it looks like a prescription store.

Does it, or does it not?

Some drug stores look like ice cream parlors—and the proprietors wonder why their prescription advertising brings so few results. Others have the appearance of cross-roads, general country stores; logically their prescription advertising is unsatisfactory. Many stores appear to the customer as simply depots for a thousand kinds of proprietary medicines, yet the proprietors do not know why their prescription advertising should not bring them better results.

He who is seriously desirous of doing effective, profitable advertising—and it can be done with astonishingly big returns—should take a turn around the block and give thought to the aforementioned points when he gets back and looks at his store.

Be it known right here that the most successful prescription drug stores, those that have gotten the best results from their prescription advertising, are those stores manned by live business men with the professional instinct, who have deliberately built or rebuilt prescription stores, stores that have the air of prescription stores as far as you can see them and as closely as you can inspect them.

Second Fundamental.

The second fundamental of prescription advertising is that no newspaper advertisement, circular, letter, sign, street-car card, or other form of advertising which bears the druggist's name should tend to lead the public to believe that his store is not a prescription store. To elucidate this proposition: Suppose the manufacturer of a product which is offensive to morals, or to decency comes to a druggist with a proposition that if he will buy a certain quantity of these goods, for which there may be a demand, his name will be put at the bottom of each advertisement to run in the local paper thereafter three times a week. The druggist accepts the proposition. That large part of the public who look with disfavor upon goods of this character is told by these advertisements that the druggist is a dealer in them. In explanation he may say that the advertisement is not his, but the manufacturer's, who has been allowed to connect the druggist's name with the goods. But he must not forget that the public does not know the circumstances and could not understand them if it did, and the impression is that the druggist is financially interested in the sale of the goods—which to an extent he is—and he alone is held responsible for the advertisement, and there arises the belief that his is that kind of a store. Consequently when he starts prescription advertising his efforts "roll off" the public like "water off a duck's back." No impression is made. The public is not interested, it does not pay any attention to the advertising. The reason is obvious to any one who looks on from the outside.

The second fundamental, therefore, is that in whatever the druggist does he should not take any action which will prejudice the public against his store as a real prescription store.

Summery Suggestions

The things you need for a happy, comfortable vacation trip—or at home. Check over this list before you begin packing.

FOR COMFORT

Talcum Powder
Foot Powder
Cold Cream
Skin Lotion
Dentifrices

Insect Detergers
Toilet Waters
Bath Salts
Sponges
Soap

FOR PLEASURE

Outing Goods
Confectionery
Reading Matter
Sketch Books
Cameras

Talking Machines
Musical Instruments
Playing Cards
Vacuum Bottles
Hammocks

Take them with you or order by mail.

Don't neglect baby. We will keep you freshly supplied with foods and nursery goods.

HAVE YOU A SATISFACTORY FIRST-AID OUTFIT?

(Name and address)

Third Fundamental.

The third fundamental is that the doctor shall understand the good qualities of the druggist's prescription work, and understand that his store as a whole is not working in a hostile manner toward the interests of medical practice. By this it is not necessarily meant that the druggist should be an extremist. It is meant that he should be careful what he does with regard to ready-made patent medicine either nostrums or own-make, and that he should at least work to some measure in harmony with physicians. He should become acquainted with the physicians, he should be friendly to them, and show them that he is treating them fairly.

These results with physicians cannot be accomplished in a day or a month or a year. They are a gradual growth like any real friendship or character. The physicians must be given time to come to a full realization of the standing and meaning of the store as a prescription store. A series of good, straightforward letters to the physicians is nearly always successful. The letters must ring true, must say something worth saying to the physicians, must have a personal, agreeable tone, must be interesting enough to read, must be done well from a mechanical standpoint, and must really represent the store in all of the prescription work which it does. This sounds formidable, but any druggist who is doing good prescription work and considers his prescription department an important one, can find enough to say about his work to enable him to write a letter to the doctors every day in the year, if he wants to.

Letters, like advertisements and like circulars, are made interesting and effective by picking up little points and elaborating on those points, using them as illustrations just as a public speaker does. The old idea of crowing about yourself and claiming big things is passé. Likewise, the old idea of being dull, limited and conservative is passé. The new idea of going ahead, being alive, saying something worth reading, progressing, being ambitious to reach the head in prescription work, being determined to build up a real leadership prescription store is very much in vogue at the present day.

Fourth Fundamental.

The fourth fundamental is that the druggist be a prescription man himself and have every clerk, who handles a prescription, a real prescription clerk. Careless, indifferent, slovenly prescription work should not be tolerated. The proprietor should give serious attention to his prescription department in all its details. He should let it be evident that he wants prescription business, that he will take care of prescription business when he gets it, and that he can do and does the right kind of dispensing. In other words, his heart for a part of each day must be in his prescription department, and his ambition must be to make it be of a real service for the doctors and for the public.

Success in every line is built on service. Service depends on enthusiasm, not outward enthusiasm or bluster or talk, but real hearty enthusiasm, sincere enthusiasm, the kind of enthusiasm that enables him to think out new ways of making his work accomplish more. The druggist who is giving his whole attention to the management of the soda fountain cannot, at the same time, be a good prescription man. If he is giving his attention to cigars or nostrums or toilet goods, he will not be a good prescription man. His prescription department will be only as good as he is good as a prescription man. This does not mean that the proprietor must do all the work; it does mean that his must be the motive power, the controlling factor, the brains and heart in and behind the prescription department.

BRICKS

40c.

Take home a brick of our luscious Ice Cream. Frozen solid; stays solid for hours. All flavors and combinations of the richest, purest Ice Cream to be had. Fruit flavors as natural as nature. Brick Ice Cream is the daintiest of desserts for supper, luncheon, card party or "treat." Bricks measure quarts and pints.

ORDER BY TELEPHONE

if you are in a hurry. We'll keep some on ice as long as you wish. Deliveries anywhere, anytime, at no extra cost. Ice Cream in bulk—a gallon or five gallons if you wish.

(Name and address)

Fifth Fundamental.

When all the foregoing points have been compassed the real starting point is reached. The druggist is now ready to do prescription advertising. He can do prescription advertising and make it pay to some extent without qualifying under the foregoing rules; but we are considering ways of making prescription advertising most successful. We will not be content with mediocre results, we will not be satisfied with getting a small return for our investment in prescription advertising when we might get big returns.

Prescription advertising is not a one-kind advertising; its forms are many. Usually the least expensive and, for the investment, the most successful form is direct letters to the physicians. These letters must go out of the heart of the prescription department and truly reflect that department. Even the ordinary prescription department has ample sources for good letters. Every day something is happening in the prescription department that is worth telling to the physicians. A clerk is cautioned about something. What is said to him is just what others are saying to their clerks. If a doctor heard it he would think more of your store. The thing to do is to write it, properly worded, to the doctor.

Letters to the public are good prescription advertising. All that has been said about physicians' letters applies to the letters to the public.

Street car cards are good prescription advertising, but expensive. Nevertheless, it must be remembered that the more people come to the prescription department the more they buy other goods of all kinds.

Circulars are good prescription advertising provided they are good circulars. Some druggists say that they do not believe in circular advertising. They have tried it, and it has brought no results; but in the circulars that they used the vital factor of copy has been slighted. Copy is the wording of the advertisement in whatever form it may appear. One retailer writes an advertisement which makes his five-inch double-column space in a newspaper

very profitable; another retailer writes an advertisement to occupy a five-inch double-column space in the same newspaper, and it brings no results. The first retailer puts another advertisement in the same space, which brings few results. The second retailer writes another advertisement, for his space, which brings big results. Results vary with the effectiveness of the copy and the medium and with the conditions under which it has been used. Circulars are one of the most effective forms of advertising when the circular contains good copy, adapted to the store which is issuing it and to the peculiar conditions of the time and place when and where it is used.

Newspaper advertising is good prescription advertising under the right conditions. The only question to decide about newspaper advertising is: Are enough of the papers used in the store's territory to give a reasonable prospect of success in proportion to the cost. When that question is decided, it is up to the copy-writer to make good.

Good prescription advertising may be done through a store paper, particularly in instances where the store is of high quality and reflects high-class prescription work in all that it says and does.

When the various methods of prescription advertising are considered, and the particular form best suited to the store has been determined, the drug store that looks and is a prescription store can soon be made known as one.

The Gentle Art of Shopping.*

BY BRUCE LOGAN.

Scene.—Modern Pharmacy (gushing lady enters and knocks over a scent-spray and a packet of toilet-oatmeal). The pharmacist's efforts to speak are between the paragraphs.

"Oh, dear! dear! Whatever have I done? Oh, I am so sorry!"

"No! no! Don't bother, Mr. Tilpile. I'll pick them up. It's really my fault."

"Oh, I am so sorry; but I'm afraid this box has cracked a little" (holds up a mutilated packet from which the oatmeal gushes forth).

"Oh, but it does matter, Mr. Tilpile, though really I didn't touch it! well, if I did touch it, it was ever so gently."

"There now. It really doesn't look much worse, though I'm afraid you'll have to sell it a little cheaper. But, then, you'll not mind that. You chemists get such big profits."

"No, really, don't say that, Mr. Tilpile, because I happen to know. Well, I ought to know, seeing that my step-sister's husband is a doctor, and he tells me things."

"Really, Mr. Tilpile, I don't know how you can say such

Your Prescriptions

Without doubt, the need for medicines is just as frequent in summer as in winter. At all seasons be sure to bring or send your prescriptions to us, and be sure of drugs of known quality and freshness, ample and adequate facilities for scientific compounding, knowledge and training in our work—there's the combination for safety, results and satisfaction.

(Name and address)

things! Everybody knows that you put a lot of colored water in a bottle and charge a shilling for it!"

"Oh, what a lovely little scent-spray! What kind of perfume is it?"

"Lily of the valley? Really! I simply adore lily of the valley."

"May I have a spray? Oh, thank you! I didn't like to ask, but really I suppose you put it there for people to try."

"Oh, isn't it lovely! I do love it!"

"One and sixpence an ounce! Oh, dear! How frightfully expensive! Rather pungent, too, isn't it?"

"No, thank you, not at present. I've such a lot of bottles at home! I'll leave it till I call again."

"Now, whatever did I come for? Oh, dear! dear! my memory gets worse and worse! Now isn't that funny! I came to get something and can't think what it is. But all my family on mother's side are like that. You didn't know my Aunt Margaret, did you, Mr. Tilpile? No! I thought not. But she was just the same. She died in Yorkshire last June—no, last twelve months. Yes, that's it, seventeenth of June."

"Now, whatever did I come for? Oh, I know! Do you keep Epsom salts? Really, isn't that silly of me; of course you do keep Epsom salts."

"Fourpence a pound! Do you know, Mr. Tilpile, I can get awfully nice salts at the stores at 'tuppence' a pound."

"Oh, no! I'm not grumbling; but really I can."

"Oh, yes, I know! That's what you chemists always say. I'll take quarter of a pound, please."

"Thank you! Good morning!"

Chinese and their Physicians.

In reply to a correspondent, the *Journal of the American Medical Association* says that the oft-repeated story, to the effect that the Chinese pay their physicians to keep them well, and cut off the pay when they are sick, is untrue.

"All authorities acquainted with China agree that the method is so seldom met with as practically not to exist," says the *Journal*, which adds: "Were there such a custom the physician (though that is hardly the term to apply to the native malpractitioner) would promptly go out of business, for his clientèle would speedily develop real and imaginary cause for reducing his income to zero."

A league of the aviadores (rubber merchants) of Para, Brazil, has been formed for the purpose of putting the price of rubber beyond the influence of speculation. Stock subscriptions amounting to 1,000,000 milreis (about \$300,000) have been received and it is reported that State and federal aid will be forthcoming in the effort to prevent the continuous depreciation of values. The firms represented in the league control more than half of the exports from Para.

An Altoona (Pa.) man, according to press dispatches, drank the entire contents of a vial of Haarlem oil because he did not know how much constituted a dose and because there was no dosage information on the label. A physician (the press dispatch does not say why one was not first consulted) succeeded in saving the victim for future usefulness.

The *Detroit Free Press* says that the new pharmacy of Charles F. Mann, at 901 Woodward avenue, that city, sets a high-water mark in store furnishing and general appearance. Such a record in a city boasting that its business establishments are a fit part of "Detroit the Beautiful," is one to be proud of.

Entering largely into the make-up of R. A. Tamasco, drug clerk, of San Francisco, Cal., is "the stuff of which heroes are made." A press dispatch has it that this doughty druggist floored a bad bandit with a swing on the jaw, albeit the bandit had a big gun jammed against the druggist's breast.

Several local druggists are implicated in a system of perfume stealing recently unearthed in this city. Park & Tilford were the victims through the pilfering of an employee, high-grade imported perfumes to the value of \$30,000 having been abstracted from the firm's stock at different times.

E. L. Scholtz, of Denver, Colo., has been elected president of the new Denver Retail Merchants' Association.

* From the Chemist and Druggist, London.

FOUNTAIN FACTS AND FORMULAS.

Flirting with the "Fans."

Base-ball "rooters" are, from the nature of their avocation, a thirsty crowd. They are good spenders, too, and stickers, as their devotion to the home team proves. Therefore they are a worth-while class to enroll among the patrons of one's fountain.

Aside from street-car cards and a board or two at the ball grounds, a window display is the winning play in captivating the trade of the "fans." The thing is to get in early in the season and get the "fans" "rooting" for *your* fountain; if you put up a "good game" in the start-off you can count on enthusiastic support throughout the season.

Here's a hint that may prove a drawing card to open the season:

Roll up a couple of Sunday newspapers to form a rough sphere about 18 inches in diameter. Shape this up a bit by winding a few rods of wrapping twine around it; pad it out smooth with cotton batting, and cover it with white crape paper cut in the dumb-bell pattern of the regular base-ball cover and glued fast. Imitate the stitching with a pen and ink; hang your "baseball" in the center of the window space on a line with the eyes of the passer-by. Letter the front side of the ball thus:

The Regulation Fan's Drink

is

"Rooter's Refresher"

5 cents.

Lay out the window floor with sand and green sawdust to resemble a ball field with bases and all. Line up opposing teams of small dolls in baseball uniforms, and if feasible have "bleachers" in the background filled with spectators. All around the outer edge of the field place colored carboard signs lettered somewhat as follows:

You can holler twice as loud after a drink of Rooter's Refresher	ROOTER'S REFRESHER always a SURE HIT
---	---

A Rub-Down for Dry Throats ROOTER'S REFRESHER 5 cents
--

Every team must lose sometime, but Rooters' Refresher has a perennial winning streak
--

Any slightly acid drink served in big glasses without foam may be called "Rooter's Refresher." A winning combination is a blend of orange syrup 2 parts and mint syrup 1 part with a couple of dashes of lime juice added on serving.

Cleanliness not Everything.

While all writers on soda water emphasize the importance of keeping the glasses clean, there are other things in connection with the business which are of even more importance. This point is well illustrated by an incident related by an anonymous contributor to the *New Idea*, who says:

"The writer happened into a suburban branch of a big down-town drug store and found a boy of about fifteen in charge. He was busily engaged in polishing up the glasses at the fountain. I asked if they served hot chocolate. He bit off a short 'yep' and continued his polishing. 'May I have some?' 'Yep'—more polishing. 'May I have it now?' He looked up in surprise, took me in from head to foot, and answered, 'Sure Mike'—finished his polishing and finally served me with a strange mixture that would have been more properly named had it been called dish water."

An Iowa Arbor and Grill.

During the eight years that the store of the Boyson Drug Company has been located at the corner of First avenue and Third street, Cedar Rapids, Iowa, its business has increased wonderfully. Particularly has there been an unusually rapid development of trade in soda water and luncheons. The busy soda water department centers in the fountain depicted in the accompanying illustration. This is a new "iceless" apparatus opened in February. The counter, which is of solid onyx, is built to accommodate an offset in the room, and the solid mahogany back-bar is also carried around the angle of the offset. To the right of this fountain extends to the rear of the store a room known as "The Grape Arbor." In the grape arbor are about a dozen tables at which sodas and light luncheons are served throughout the day.



The Boyson Fountain.

So successful has been the soda water and luncheon department that Mr. Boyson has recently opened up another room off the grape arbor which he calls "The Soda Grill." This is one of the most beautifully furnished and fitted rooms of the kind in the country. It is illuminated with four large indirect lights hanging from the ceiling, giving it the effect of soft day-light, and a richness which is in splendid harmony with the neutral tints of walls and ceiling. This grill is 23 feet square, and has fourteen side tables for two each, and four large tables in the center, each of which accommodates four patrons. Altogether, 100 persons can be seated and served at one time in the grape arbor, the soda grill and at the fountain.

J. M. Kortlang, the manager of this busy department, was for years with the Myers-Dillon Drug Company and Sherman & McConnell, of Omaha, and is one of the best known soda water men in the West. His experience and ability have aided very materially in the growth of the business. He says that they expect to do a \$35,000 to \$40,000 business this year.

The Boyson fountain caters only to the better class of people; very good prices are secured for everything, and everything is served in the daintiest possible manner. The fountain is very popular with business men and business women from the down-town district, who drop in regularly at noon to get a light luncheon with a hot or cold drink.

Mr. Kortlang says that Cedar Rapids is a good soda water town, and the people are not averse to paying good prices for good goods. They appreciate cleanliness and dainty service, and are willing to pay for it. A continual effort is made to vary the menu from time to time, so that there are always a number of palate-tempting novelties both in food and beverages.

G. H. Boyson, the proprietor, is somewhat of a busy man. He has taken an active interest in the affairs of the Iowa Pharmaceutical Association, and is president of the Ad Club, of Cedar Rapids, an organization that has done wonders in the matter of boosting the city and its industries. The Ad Club is more than an advertising club; it consists of the solid business men of the town, who show a splendid example of shoulder-to-shoulder team-work in boosting Cedar Rapids.

Fan's Flip.

Break an egg into a large glass; beat it to a froth; draw an 8-ounce grapefruit phosphate; mix the two with a tall foam.

A Few Fundamentals.

South Framingham, Mass., ranks high among towns of its size for the soda-water thirst of its citizens. Nine first-class fountains supply the thirsty with the sparkling phosphate, the creamy egg drink, and the fancy confection of the sundae group; and on a midsummer Saturday from \$400 to \$500 passes to the tills of the soda-water men. Travis & Cunningham, druggists, have been getting a goodly share of this legal tender, and expect, with their new 18-foot "iceless" and-all-improvements fountain, to make their competitors hustle to keep any of the trade.

The T. & C. soda dispensary is in charge of E. H. Shor-tiss, a veteran dispenser, who favors us with the following recital of some of the fundamentals to be borne in mind and put into practice by the dispenser who would be a top-notch:

"The soda business of the United States has grown so fast and the public taste has accepted soda so gladly—people really cannot get along without soda-water at the present time—that it seems like a dream. Men, women and children must have their different sodas or ices every day, just as they have their meals. This habit is a good one, and it will be found that there are thousands of patrons who make daily calls at the fountain for their favorite beverages. A dispenser can count on just so many every day, and he knows just what Mr. So-and-So wants and how he likes it. Oft-times patrons who have been away for a day or two will tell the soda man that they could not get good soda in some other town and that they missed their accustomed quality-soda.

"Still the soda business of this country is in its infancy. When thought is given to how it is growing and pushing ahead there must be aroused a great deal of pride, and it behooves dispensers to try very hard to help it to grow into a clean, upright business, keeping away from anything that may cast a shadow on the future.

"Mr. Dispenser, it is up to you to keep the ball rolling by being perfect in your manners, keeping your fountain clean and bright and your syrups and carbonated water up to the standard. Make the soda business your life study; try constantly to improve each beverage or ice you dispense. Make your department inviting and attractive to all. Keep your assistants supplied with clean waist coats and caps. Clean your displays and cards weekly.

"The soda-water business is naturally a clean one. Soda drinking helps many people to brace up and shake off injurious habits. The coming of the soda fountain has made it possible for thousands to pass many pleasant moments in congenial gatherings. The apparatus manufactured have provided beautiful fountains with all improvements so that the dispenser's work has become more agreeable; his working day is shorter, and he gets a better salary. It is easy to stick to it, bearing in mind that taking an interest in the business is half the battle. By reading and studying the dispenser can keep up with the 'band wagon' and please his employer and his customers."

If to attract flies is an object, leave soiled glasses on the counter—a little spilled syrup will help too. But remember that what draws flies usually has the opposite effect upon customers.

An Assorted Dozen.

Here are some hints, garnered, adapted and original:

Golden Ade.

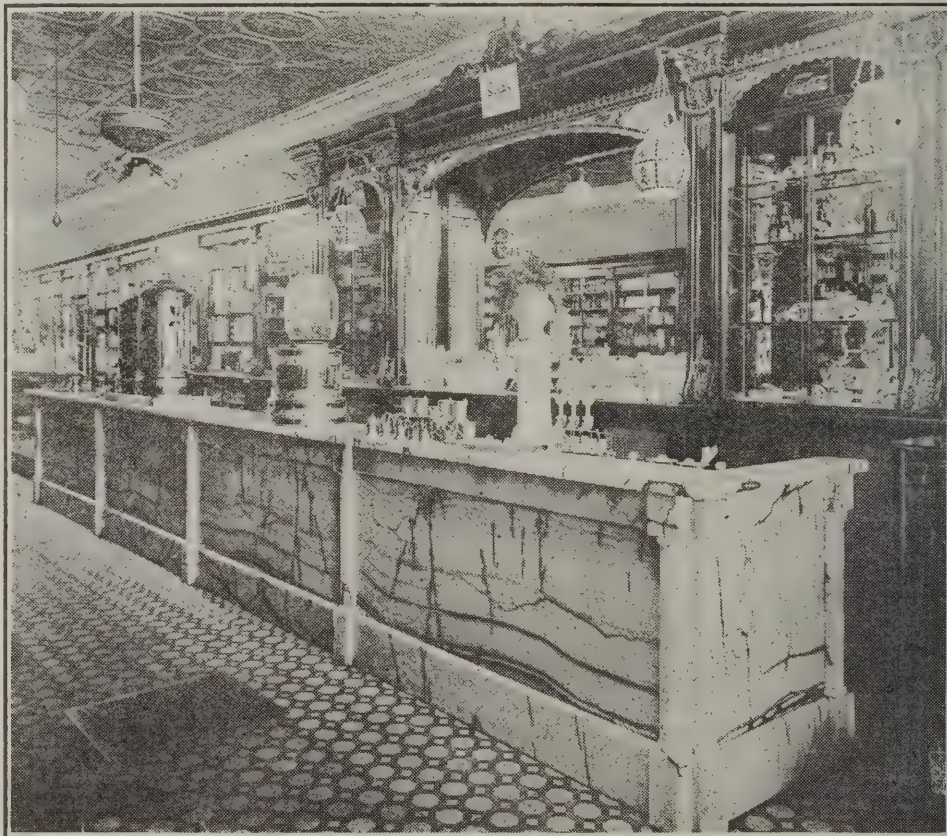
Yolk of 1 egg; white grape syrup, 1 ounce; cracked ice and milk.

Orange Posfait.

Orange ice, 1 ounce; vanilla ice cream, 1½ ounces; whipped cream, 1 ladleful. Shake together; transfer to sundae cup; top with a strawberry and a dab of whipped cream.

Islet Sundae.

Place a slice of pineapple in an ice cream dish; put a cone of vanilla ice cream on the center of the slice; pour over all a little orgeat syrup; top with a cherry, and sprinkle over some chopped almonds.



The Soda Fountain at Newcomer's Drug Store, Toledo, Mentioned in last Month's Circular, Page 273.

Celery White Cap.

Celery syrup, ½ ounce; lemon syrup, ½ ounce; white of 1 egg; cracked ice and carbonated water.

Yamosa.

One egg; raspberry syrup, 1 ounce; ginger ale syrup, ½ ounce; cream, 1 ounce; shake with cracked ice; serve solid.

Maple Mousse.

Cook in a double boiler 1 cup of maple syrup and the yolks of 4 eggs, for twenty minutes. Stir in the white of one egg, whipped light, and remove from the fire. When cold, add 1 pint of well-whipped cream; put into an ice cream freezer, and freeze rapidly.

Sunflower Sundae.

Put a portion of chocolate ice cream in the center of a flat plate; flatten it out somewhat and arrange around the edge alternate pistachio nuts and slices of peach.

Mint Squash.

In a 12-ounce glass put blackberry syrup, ¾ ounce; lemon syrup, ½ ounce; and ginger syrup, ½ ounce. Into this squeeze the juice of 1 lime; add 2 dashes of essence

of spearmint; fill one-third full of fine ice; fill up; shake; and decorate with a sprig of fresh mint.

Bahama Belle.

Split a red banana and on top of the slices laid on a dish put a cone of vanilla ice cream; pour over this a ladleful of crushed pineapple and sprinkle with candied shredded coconut.

Cider Nog.

One egg; vanilla syrup, 1 ounce; sweet cider, enough to fill an 8-ounce glass. Shake with cracked ice.

Opera Special.

Put 3 round slices of orange on a flat dish; upon each put a small cone of ice cream—one vanilla, one strawberry and one bisque; over all pour cherry syrup and chopped maraschino cherries.

"Yes—um—deed."

Put a 2-ounce cone of orange ice in a deep sundae cup; add a tablespoonful of chopped candied ginger and 1 ounce of ginger syrup. On the side, serve ginger snaps.

A Baltimore Fountain for the Fastidious.

Although it is located in a section of the city from which there is a considerable exodus to summer resorts, the soda water department of the drug store of W. M. Fouch, at the southwest corner of Charles street and North avenue, Baltimore, is one of the busiest in that city where the soda water business is fast assuming gigantic proportions. Many of Mr. Fouch's drug-store customers are out of the city during the greater part of the heated term, but, as the corner is a transfer point for the street car lines the fountain gets a large transient trade. Attractive window signs draw attention to the various liquid delights dispensed within, and small neatly-lettered cards on the inside of the store furnish the necessary reminders to undecided customers as to the drink they desire.

The neighborhood being quite select, the management of the fountain must be in accordance. Mr. Fouch does not believe in divided responsibility, but in having a man in charge of the fountain who is thoroughly competent and capable. Upon this man devolves the responsibility for compounding the regular drinks and originating new ones. He is allowed to a large extent to follow his own methods and is held accountable for the success or failure of the fountain as a profitable adjunct to the pharmacy. Mr. Fouch believes that the management of the soda fountain is as much a specialty as the putting up of prescriptions, and that, while the former may not call for special courses of instruction, it demands experience and enthusiasm; and the dispenser must believe in the importance of his occupation and take it seriously.

As might be expected at so fashionable a stand, the sundaes and other drinks are served in dainty glasses of artistic shape, and there is a touch about the entire fountain that is in accord with the refined environment of the majority of the patrons. Popular prices are no object there. The patrons being largely of the wealthier class, they make no objection to paying well for what they want. The chief requirement is that everything shall be good. Thus the sundaes run up as high as 20 cents, all ice cream sodas are 10 cents, and only the beverages that contain nothing more than carbonated water and some syrup sell at 5 cents. Reductions in price would be rather a detriment than an advantage, since this would create an idea of cheapness, which is there carefully avoided. People do not call there for soda water because they can get it for less or because they get it in a larger glass, but because they are certain of being served with the best materials that can be obtained.

Such details as absolute cleanliness and neatness need not be mentioned; they are accepted as a matter of course. It would not be possible to build up a remunerative business without strict observance of these elementary requirements. In addition, Mr. Fouch finds that he must add a touch of daintiness and of fastidiousness, which a soda dispenser in many other places might disregard. The man in charge of the fountain must be as correct in his demeanor and as scrupulously painstaking in his manipulations as though he were always under inspection. He must be an artist in his line who can give just the right touch to the composition of a sundae, and turn out egg shakes, flips and the like with the full rich color.

Mr. Fouch does not go extensively into novelties, finding the regular list of drinks satisfying enough. A bowl of eggs is displayed always on the counter, and an appetizing

array of jars with fruits and syrups is maintained. It is by the use of such object lessons as much as anything else that he advertises his fountain. This apparatus is of a quiet, dignified design, with mahogany and cathedral glass buffet back. The cards used with the names of various drinks are not so large as to detract from the general effect. No menu cards or similar devices are used, but the dispenser always stands ready with suggestions. Prompt service, in fact, is one of the most effective means relied upon to make a favorable impression. There are no long waits at Fouch's.

During the hot soda season and in the spring chocolate easily takes first place among the flavors being called for more frequently than any other. Naturally, every detail is looked after to have the chocolate just so, for the excellence of the drink must justify the reputation of the establishment. With the advent of the warm weather, lemon phosphates have especial vogue. Vanilla is a prime favorite with the members of the fair sex, who make up a large proportion of the drinkers.

The various sundaes are quite popular in all the combinations usually to be found at soda fountains. Mr. Fouch's nut sundaes are justly famous, and he experiences no difficulty in getting 15 cents for them, when other places do well to obtain 10 cents. Mr. Fouch has never relied upon cheapness to meet the competition that has grown up around him, but has proceeded with the supposition that his patrons are willing to pay a fair or even a good price as long as they can get beverages that are in all respects satisfying. He has a very critical clientèle to deal with, and any falling off in quality would be quickly noticed.

It has been Mr. Fouch's experience that graham crackers and little cakes kept on the counter available to the customer serve to attract additional patronage. No elaborate assortment of solids is maintained, the requirements of the customers being satisfied with a few simple eatables. For most of his malted-milk-and-egg drinks Mr. Fouch gets 20 cents, and the number called for is gradually increasing.

Without any great flurry or flourish of trumpets Mr. Fouch has built up a soda-water business that pays and bids fair to pay better. He has secured this result by a steady effort to satisfy, and if possible exceed, the requirements of the most exacting customer.

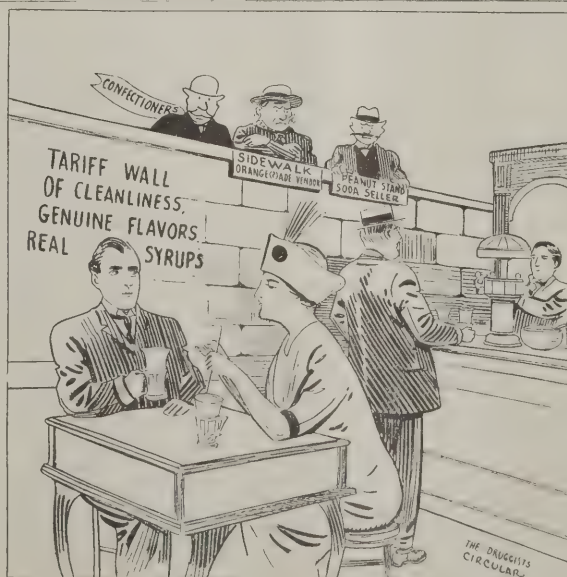
A Couple New Conceits.

Betty Brown.

In a deep sundae cup put half a dozen fresh strawberries and a teaspoonful of granulated sugar; crush slightly with a spoon; pour in 2 ounces of grape juice; put on top a "32" disher of currant ice, and on top of that a "32" of vanilla ice cream.

Little Girl.

Put a ladleful of diced pineapple (no syrup) in a deep sundae cup; pour over this 1½ ounces of orange syrup; add a dash of phosphate, and turn in a "20" disher of orange ice.



Real Protection against Competition.

Meetings of American Pharmaceutical Association Branches.

Baltimore.—The Medical and Chirurgical Faculty of Maryland invited the members of the Baltimore branch of the American Pharmaceutical Association, and through them all the druggists of that city, to attend the closing session of their annual meeting on April 27th and to take part in a joint discussion of professional relations, the pure food and drug law and the anti-narcotic laws of Maryland and of Baltimore. Dr. Smith, president of the faculty, presided and the attendance of both physicians and pharmacists was large.

Dr. Wm. H. Welch, president of the American Medical Association and chairman of the State board of health, opened the meeting. He referred to the close and pleasant relations that had existed between the faculty and the pharmacists of Maryland, the establishment of the Maryland College of Pharmacy having actually been brought about by the faculty in 1841. The invaluable work of the council on pharmacy and chemistry of the American Medical Association, he said, demonstrated what could be accomplished by joint effort, and pharmacists should take great pride in the council and heartily support it, notwithstanding the criticism it had received. The board of health had started in the application of the pure food and drugs laws with two intentions: first, to secure, with the advice of pharmacists and other affected, as commissioner, the best man obtainable, and they thought they had succeeded admirably in the selection of Prof. Caspari; and second, to bring about the general observance of the provisions of the law in a reasonable time—not by drastic means, but by co-operation, education and reform. The law in general was a good one, and while some of its provisions could be improved and might even be in conflict with the judgment of the board, it was the law, and must be enforced by other than pleasant means if necessary. There are, he mentioned, new developments in medicine, particularly in modern pharmacology, in which pharmacists can and should take a prominent part. Dr. Welch expressed great sympathy with the joint meetings, to consider the mutual interests of the two professions.

Dr. Samuel T. Earle read a paper on "Professional Relations" which was enthusiastically received. Dr. Earle said that it was a subject which had been discussed until it had become trite, but was of such interest to both professions as to bear consideration. He referred to the need the physician had for the assistance of the trained pharmacist, and the equally great need the pharmacist had for the physician. This mutual dependence should bring them closer and to a realization of the proper and natural limitations of the activities of each. The lack of pharmaceutical training in the medical schools made the doctor an easy prey to the detail man, and he advised the pharmacist to counteract this by demonstrating to the doctor his willingness and ability to supply standard official preparations. He thought the physicians should and would then confine their prescriptions as much as possible to official drugs and preparations. He realized that these were ideal conditions and difficult of attainment, but not impossible with cordial co-operation. The members of both professions need to be brought together more and he hoped that other meetings of this character would be held.

Prof. Caspari thought that an extemporaneous discussion of his subject, "The Present and Future Status of the Maryland Pure Food and Drugs Law," was better than a set paper. He considered it eminently proper to discuss this law in the hall of the faculty, where it practically originated. The work of the board so far had been educational, as Dr. Welch had explained. The present law, parcelling so closely the national law, is in the main satisfactory with two exceptions. One is the permission of the sale of substandard drug products under the official name. Even if the strength be given on the label as required, this does not protect the lay user, because he does not know the official strength. In addition, it provides for unfair competition. The other weak point is the requirements that all cases be tried in the criminal court even when the violation is only technical, which causes unnecessary delay, expense and publicity. In some States provision is made for the trial for a first infraction of the law, and of unintentional or technical violations, before justices of the peace, with no delay and small expense and annoyance. While few or no prosecutions had been begun, for reasons above explained, the board had done a great deal of work in the ten months of its existence. The laboratory, of-

fice and other routine had been established. The inspectors had visited 4852 establishments, advising with the owners and explaining the law; 1242 samples had been collected and most of them examined; and 375 hearings held with the sellers of samples which had been found unsatisfactory; 274 hearings were held on one preparation, indicating that conditions were not of the best, but it was expected that the next canvass of the State would disclose great improvements. Foods had had attention, as well as drugs. No willful violation of the law in this regard had been encountered; some failures to comply with it had been found which were due to gross carelessness and ignorance. This, of course, could no longer be excused and he supposed that some convictions would have to be secured in order to bring about reform. He asked the co-operation of all physicians and pharmacists and particularly the public.

Mr. Thomas said that the anti-narcotic laws of Maryland and of Baltimore were the most beneficial legislations affecting drugs ever enacted in the State and that they were generally strictly observed by pharmacists of all branches. From his observation and from reports they were wonderfully reducing the sale and consumption of narcotics, particularly cocaine. He referred to the embarrassment sometimes caused by a request to refill a prescription for drugs which cannot be dispensed a second time on the same order. He believed that all such trouble could be obviated by the doctor, who, when writing such a prescription might inform the patient that the prescription was to be filled but once, and impressing this instruction further by making a note to this effect on the prescription itself. This provision would preclude all possibility of embarrassment.

In Mr. Swann's opinion, in order to make the law more effective and better understood, there should not be such a wide division of authority as at present.

Mr. Powell expressed the regrets of D. R. Millard, who was to speak on the State anti-narcotic law, but who was unfortunately called away, and said as a member of the pharmacy board, that this law was in the main satisfactory and that it had reduced the consumption of narcotics largely in the counties.

General discussion was then invited and Dr. Naylor said that under the provisions of the State anti-narcotic law persons who could not obtain habit-forming drugs from pharmacies except on prescription, could buy them from general stores in any quantity, and this provided for great abuses. Other physicians from the counties said that they had encountered the same conditions. Mr. Schultze explained that the board of pharmacy had wished to have this defect in the law remedied at the last session of the general assembly, but met such general opposition from the county merchants that they did not insist, fearing that this course might imperil the law as it stood. The board and pharmacists generally were in favor of limiting the sale of narcotics to drug stores, not from a pecuniary point of view, but for the public safety. Merchants in many cases were not to blame, as they did not know the evil results, and the desired control could be secured only through concerted effort to educate them and the public.

Referring to Mr. Thomas' paper, R. S. McKinney had found that by attaching to the container in which a prescription containing a specified narcotic was dispensed, a label reading "This prescription cannot be refilled except with the permission of the physician" avoided the necessity of communicating with the prescriber when a patient asked to have a prescription refilled without having secured such permission, and the exasperating delay. Mr. Thomas replied that this method had been suggested by several associations, but that he had found it objectionable since it caused the patient to often suspect that narcotics were being prescribed, thereby leading to alarm, or worse, to habit-forming.

A resolution was passed providing for a joint committee to consider the means of furthering co-operation between physicians and pharmacists and of improving the laws controlling the sale of food and drugs.

The closing meeting of the branch for the season was held at the Medical and Chirurgical Faculty hall, May 18th.

President Meyer opened with a discussion of the difficulties encountered in filling illegible and incompletely written prescriptions. His remarks, he said, must not be considered as being made in a fault-finding spirit; it was his belief that friendly and frank criticism on the part of both professions would serve to remedy these difficulties, which were mainly due to a lack of knowledge of the troubles

caused by them. Several of the members took part in this discussion, which was most instructive and interesting, and at its conclusion the chairman of the committee on professional relations was requested to arrange a meeting with the Medical and Chirurgical Faculty early during the coming fall, for a joint discussion of this subject. Dr. J. F. Hancock recalled that such a discussion was held many years ago, at which the late Prof. J. Faris Moore was the principal speaker, and thought that the contemplated repetition would be welcomed.

W. C. Powell, chairman of the Maryland Board of Pharmacy, referred to a paper presented at the March meeting of the branch by Louis Schultze, a member of the board, criticising that body and asked permission to present a letter signed by the other members of the board, giving their views, since those members did not approve the criticisms referred to. After President Meyer had explained that Mr. Millard had been asked to present at the March meeting a paper on "The Work of the Maryland Board of Pharmacy, Particularly as it Applies to the Pharmacy Law and the Anti-Narcotic Laws of Maryland and Baltimore," and that as Mr. Millard was unable to attend, Mr. Schultze was asked to present a paper on the same subject in which the criticisms were made, Mr. Powell was given unanimous permission to read the letter which was ordered to be incorporated in the minutes. This letter severely took Mr. Schultze to task for his criticisms, denying the correctness of his assertions. Mr. Schultze asked and received permission to explain that it was not his intention in his statements to produce the impression that he evidently had, and he mentioned that one magazine had actually headed his paper as "A Defense of the Maryland Board of Pharmacy." He explained that as a member of the board for the last five years, he could say that their examinations were fairly and efficiently conducted, and that in the main the whole work of the board was satisfactory. He did not approve, however, of all the board's actions, as doubtless other members did not, and he insisted that a motion had been made in a board meeting and been carried, that the proceedings of the board should be kept secret. He regretted the unpleasant outcome of his remarks and thought that they had been taken much more seriously than they were intended to be. Mr. Millard said that no such motion had ever been considered to his knowledge and he exemplified the explanation given in the letter that the only part of the board's proceedings which were secret were those referring to examinations, and this for a very good reason the board thought.

The next meeting of the branch will be held in October.

Chicago.—The last monthly meeting for the season of the Chicago branch was held at Northwestern University Building, May 16th, and was devoted to a discussion of the working formulas of some of the galenicals of the United States Pharmacopœia.

The classes of galenicals considered were collodions, oleates, oleoresins, pills, powders, troches, suppositories, plasters, and effervescing salts. Judging from the opinions expressed at the meeting many of the galenicals belonging to these classes are seldom prepared by the pharmacist. In the case of collodion, the difficulty in purchasing pyroxilin, because insurance regulations bar it from the wholesaler's stock, was cited. Opinion was divided as to the desirability of omitting working formulas in such cases. Some of the members held that the pharmacist's indifference was largely to blame, and that no fault attaches to the directions laid down in the Pharmacopœia.

Infusion of digitalis came in for considerable discussion, the most important point brought out being that pharmacists have the idea that the ten per cent. of alcohol present preserves the infusion indefinitely, and they therefore keep it made up as a stock preparation. The keeping quality of the infusion was questioned by some.

A few favored olive oil in lime liniment, and nearly all agreed that olive oil is the ideal ingredient for ammonia liniment.

It was quite generally agreed that though compound acetanilide powder is occasionally prescribed, it should be dropped from the Pharmacopœia; also that powdered fennel should be used instead of oil of fennel in compound licorice powder. It was said that the only medicated wines that appear to be at all frequently prescribed are wine of colchicum and wine of antimony.

The next regular meeting will be held in October.

Nashville.—The Nashville branch of the American Pharmaceutical Association held its regular meeting in Furman Hall, March 9th, 1911, with President J. O. Burge in the chair.

The president extended a warm welcome to quite a large number of Vanderbilt pharmacy students who were present.

Lucius P. Brown, State pure food inspector, stated that the bill amending the pure food law had been changed so that it was acceptable to the drug trade. He stated that the house bill relating to labeling the net weight and volume did not apply to medicines.

The death of two prominent pharmacists, Leo Eliel and J. LeRoy Weber, was announced, and sorrow expressed by the members.

Dr. E. A. Ruddiman then gave a very interesting and instructive lecture and demonstration showing some U. S. P. tests that can be made in a test tube. He emphasized the fact that most of the tests of the Pharmacopœia can be made with a test tube, a balance, a graduate, an evaporating dish, heat and a water bath. He began with the exudations, saying that the Pharmacopœia gave 69 tests for them, 58 of which could be made with the above mentioned apparatus. He tested acacia, showing how easy it was to detect the presence of starch, dextrin, sugar and sand. Under the official acids, there are 349 tests given, 234 or 67 per cent. of which, he said, could be made with a test tube and the other apparatus mentioned above. He tested hydrochloric acid and showed how the presence of iodides, bromides, arsenic, sulphates, sulphites and heavy metals could be detected. He then demonstrated how easy it was to tell the difference between gallic and tannic and citric and tartaric acids. Acetanilide, acetphenetidin and antipyrine were each tested and their different properties shown quite easily. A very simple U. S. P. test showing the difference between wood and grain alcohol was given. Creosote, phenol and cresol were each exhibited and their identity proven by some very simple tests. Dr. Ruddiman was given a vote of thanks.

W. R. White then addressed the branch on the subject, "Which shall come first, A Course in Pharmacy, or Practical Experience." He maintained that a course in pharmacy should be taken first; then the practical experience. He believed in theory then practice.

Mr. Burge exhibited a scrap book he had formed of facts and formulas.

New York.—The last regular session of the New York branch of the American Pharmaceutical Association was held May 8th. A somewhat greater than usual number were present, many being students from the local schools of pharmacy.

Treasurer Joseph Weinstein reported a balance on hand of \$53.59.

For the committee on education and legislation the chairman, T. P. Cook, recommended a protest against the Smith weights and measures bill at Albany. This recommendation was concurred in.

G. H. Hitchcock, of the special committee on joint meetings with physicians, reported that the final preparations for a meeting with the county medical society were in hand.

Otto Raubenheimer, chairman of the committee on the progress of pharmacy, presented a voluminous report embodying abstracts from a number of foreign journals. The report also referred to a case in Brooklyn wherein wood alcohol had been prescribed by a doctor as a sponge bathing fluid for a man. This matter occasioned considerable discussion, Mr. Weinstein stating that the practice was a common one, as was also the sale of methyl alcohol under the name "acetone alcohol" for external use on the human body. Messrs. Diner and McElhenie also spoke on the matter, and instructions were given to the branch's delegates to the meeting of the New York State Pharmaceutical Association to suggest to the latter organization the advisability of furthering legislative correction of these dangerous practices.

As delegates the branch named the following:

To the meeting of the New Jersey Pharmaceutical Association: Otto Raubenheimer, J. L. Lascoff and J. C. Gallagher.

To the meeting of the New York State Pharmaceutical Association: F. E. Niece, Hugh Craig and Joseph Weinstein.

The first speaker of the evening was F. E. Niece, who presented the subject of "Milk Analysis for the Pharma-

cist." First he outlined a scheme for the physical examination as to color, taste, viscosity, specific gravity, reaction to litmus, sediment, etc. In this connection, the lactometer, the lacto-densimeter and the pioscope were described and exhibited.

The speaker then took up the chemical analysis of milk, describing the Babcock method of fat determination, which he said he found compared closely with the Adams ether extraction method. Methods of estimating the total solids, and of calculating other constants with the slide-rule from the figures thus obtained were described in turn. The Leach method of detecting the presence of formaldehyde, and the detection of borax and boric acid with turmeric were also explained.

In considering the bacteriological examination of milk, Mr. Niece said that no test for tubercular bacilli should be considered final unless an inoculation was made. He explained quite in detail the technic of staining and counting bacteria, and told of the usual standard limitations.

J. L. Mayer followed with a lecture on the subject of "Water Analysis." After setting forth the great necessity for care and cleanliness in the operations, the speaker said that the first essential was to secure a truly representative sample of the water and to investigate the history and present condition of the source. He then described the Jackson permanent standards and their application and gave some explanations of the methods of estimating chlorides with silver nitrate, using potassium dichromate as an indicator; nitrites with a sulphanilic acid reagent; nitrates with an especially prepared phenol-disulphonic acid reagent; ammonia with a special Nessler's reagent; iron; and volatile and organic matter.

He cautioned the inexperienced against taking up the bacteriological examination of water. The details to be borne in mind in this work were emphasized, and bacteria-counting was described.

The third paper was "The Examination of Foodstuffs," by Hugh Craig. He also had a word of caution to the inexperienced, and advised those contemplating the undertaking of food examination to study the known and approved methods and experiment with them, as all methods are not equally successful in all hands. Ways of securing work from hotels, grocers, and the like were pointed out, and the apparatus necessary was enumerated.

Mr. Craig gave brief outlines of methods for the detection of artificial colors, benzoic acid, salicylic acid, saccharin and copper salts. He also described the technic of examining exhausted spices, "plumped" legumes and "loaded" condiments.

A very interesting discussion followed the reading of the papers in which Mr. De Jonge raised the point that the pharmacist would be better employed in examining his wares before seeking to get analytical work from others.

Mr. Raubenheimer thought it well for the pharmacist to get the analytical work before it was taken up by others.

About one hundred physicians and pharmacists attended a meeting of the branch with the Medical Society of the County of New York, held at the New York Academy of Medicine, May 25th. The meeting was opened by G. H. Hitchcock, chairman of the branch, and Dr. C. G. Kerley, vice-chairman of the medical society presided.

The general subject assigned for discussion at the meeting was "The Prescription." The first phase was presented by Dr. J. J. Walsh, who spoke on "Some Curiosities in Prescriptions." He began with the oldest known prescription contained on a stone at the Metropolitan Museum of Natural History and dating from the time of the Ebers papyrus and traced the progress of medicine as evidenced in the prescriptions of all epochs. In histories of ancient Rome the speaker found evidence of the same ideas in medical treatment that obtain to-day. Fresh air and assimilable nourishment in tuberculosis; cheap drugs for the poor and expensive ones for the rich, opium-and-carminatives, "pain balms," opotherapy, and many other things considered of modern origin.

Dr. Walsh told of the influence of Galen and of Valentine, both of whom taught similar doctrines, although centuries apart. Valentine's antimony treatment, he said, was the forerunner of the intestinal auto-intoxication theory of to-day; and Galen's use of the yellow oxide of arsenic in tuberculosis was but little different from the modern use of the cacodylates. In his interesting discourse the Doctor read a number of prescriptions that

were indicative of the medicine of the time each was written.

Dr. T. F. Reilly read a paper on "The Prescription from the Physician's Point of View," defining the prescription as simply an order that certain medicaments be supplied in a specified form. He believed that much misapprehension would be prevented if the prescription blank never bore the name of a pharmacist. It was his opinion that no prescription for a narcotic drug should be refilled except at the order of the prescriber. He favored having the prescription copied on the label of the medicine. While he considered the unlimited refilling of prescriptions to be unfair to the physician, he did not think it ethically wrong, believing it just as reasonable for lay persons to recommend prescribed medicines as simples or nostrums.

Dr. Reilly pointed out the risk taken by a physician endeavoring to write his prescriptions sometimes in the metric and sometimes in the apothecaries' system. He upheld the polymeric prescription "shot-gun" on the ground that the patient was usually suffering with more than one ailment and because the doctor's first care was to cure the patient. For the "elegant" proprietary he had the excuse that any medicine was better than none even though the effect were but psychic.

The speaker outlined some rules that should govern the pharmacist in his treatment of the prescription, and stated the desire of the physician to be that his prescriptions were faithfully compounded of the best drugs. He was rather inclined to doubt the integrity of the average pharmacist; and he cited the letters sent out by proprietary houses offering to acquaint physicians with cases of alleged substitution, the coal-tar synthetics trouble of a few years ago, and the recent attempt of a local newspaper to disparage the druggists as things that had led physicians to distrust pharmacists. He was of the opinion that the pharmaceutical organizations should rid the profession of the unworthy, or the medical societies would be forced to prepare a list of pharmacists worthy of the confidence of the doctors.

Hugh Craig, the next speaker, had the subject: "Some Interesting Prescriptions." The score or more examples presented by the speaker included prescriptions for the widely advertised "rheumatism cures," "kidney medicines" and "headache fizzes"; combinations of several forms of the same drugs; instances of incompatibility, intentional and otherwise, immediate and deferred; incomplete prescriptions; lengthy directions; intentional large doses; and special and code prescriptions. The various examples were commented upon as read.

The next paper was by Jacob Diner, on the subject of "Efficient Medicaments in Palatable Form." This paper is printed in full on page 293. In connection with this paper Mr. Hitchcock exhibited samples of a number of official vehicles.

Dr. G. C. Diekman, who was the next speaker, presented the subject of "The Ethical Consideration of the Prescription," taking up the various phases of the relations between prescriber and dispenser in constructing and compounding the prescription. This paper will appear in full in next month's CIRCULAR.

Doctors Kerley, Meyer, and Tannenbaum and Prof. W. C. Anderson, together with the speakers referred to above, took part in the discussion of the papers. Prof. Anderson differed with Dr. Reilly with regard to the newspaper arraignment of druggists, and forcibly pointed out the flimsy nature of the latest "exposure." He said that pharmacists, generally, were in favor of depriving the substitutor of his license; and that the tendency in pharmacy was all toward the best supporting of the physician. Dr. Kerley condemned office-dispensing by physicians, believing it to be the duty of the doctor to support the pharmacist.

After the original speakers had spoken briefly adjournment was taken.

Philadelphia.—The principal paper presented at the meeting of the Philadelphia branch of the American Pharmaceutical Association on May 2d was by Dr. H. C. Wood, Jr., the subject being, "Ethical Preparations—Methods of their Exploitation."

The attack made by Dr. Wood was along the following lines: (1) The published formulas of the mixtures are unreliable and oftentimes distorted. (2) If the formula is correctly stated at first it is likely to be changed at any time without the knowledge of the physicians who pre-

scribe it on its original merits. (3) Doctors eventually come to regard these mixtures as individual medicines. (4) It encourages self-treatment. (5) The manufacturer is usually more ignorant than the least informed country doctor. (6) The whole business, from start to finish, is rotten from the core.

Dr. Wood illustrated his arguments with pictures on a screen of some widely-known and advertised nostrums with their labels, which, it was declared, were being advocated by both doctors and druggists.

Dr. A. G. Morgan strongly supported Dr. Wood's views. He said in part:

Young doctors and country practitioners have been unjustly criticised for an evil for which they are not half so culpable as are the reputed fashionable doctors of our own city. I can take you to men who have worked in the drug stores of the district between Twentieth and Broad and between Chestnut and Spruce streets, and I can prove the truth of what I say about the physicians of that high-class section being guilty of prescribing the nostrums that we are trying to stamp out. What we need as physicians is not so much a higher education as a higher standard of morality and manhood.

The best way to get away from prescribing fake cures is for the physicians to get back to first principles and study materia medica, the National Formulary and therapeutics. If some doctors would give as much time to the study of medicines as they do to listening to high-salaried talkers employed by nostrum manufacturers to get their goods on the market it would prove a whole lot better for both doctors and patients. The evil has grown through the support given it by a certain class of physicians, and I find, too, in my own experience, that many druggists are discovered recommending this or that compound for this and that disease, when they know absolutely nothing about the ingredients of the thing they recommend.

Prof. La Wall declared that his own experience had proved not only what Dr. Morgan had said, but that the nostrum business threatened to grow to be a much greater evil unless strong measures were used to curb it. "We need education and legislation," said he, "education to elevate the doctor above prescribing these fake cures; legislation to prevent every Tom, Dick and Harry from going into the manufacture of these nostrums. A druggist has to study for years and pass the State board examination before he can put up the simplest prescription. These makers of supposed cures that come before the public with glittering names in many instances do not know the first thing about either chemistry or medicine."

In accordance with a plan agreed upon by both organizations, the meeting of the scientific section of the branch preceded that of the branch proper. Dr. I. V. S. Stanislaus, chairman of the section, presided at this meeting, at which the principal speaker was J. S. Goldbaum, Ph. D., of the department of chemistry of the University of Pennsylvania. His subject was "Methods of Electrochemical Analysis," which was illustrated in a most interesting manner with an exhibit of apparatus and its use.

Washington.—The meeting of the City of Washington branch of the American Pharmaceutical Association, held May 13th, was devoted to a visit to the drug garden at the Arlington experimental farm of the United States department of agriculture, and in many ways this meeting proved to be one of the most enjoyable and instructive of the year.

Earl C. Butterfield, the superintendent of the farm, personally conducted the preliminary trip over the farm itself and explained many of the various investigations that are being conducted by upwards of twenty divisions of the department of agriculture in what is practically a field laboratory.

One particularly interesting feature of the farm is the fact that it is being utilized as an outdoor museum of fruit trees that can be cultivated in this section of the United States. Thus the huge peach orchard of upwards of 700 trees is utilized as a check on the several available varieties of peaches, and also as a basis for experimentation for devising ways and means for combatting the diseases and insect pests to which peach trees are subject.

The same line of work is being done with apple and other fruit trees, and the fruit orchards alone are well worth seeing.

From an economic point of view probably the most important line of investigation that is now being carried on at the Arlington farm is the improvement of the several cereals that can be cultivated in this and the more northern sections of the United States. Among the grains to which particular attention was directed were a winter oats, a beardless barley and several varieties of rye. In this connection the method of conducting electroculture

experiments was also explained and the differences in the conditions prevailing in this country and in Norway, where electroculture has been practically established were commented upon.

The work done in connection with drug and perfume plants was explained by Dr. Rodney H. True, the physiologist in charge of the division of drug-plant investigation of the bureau of plant industry, and one of his assistants, Walter Van Fleet, who is directly in charge of the drug garden.

Upwards of two hundred medicinal plants are under observation, and a very large number of perfume-yielding plants are also being experimented with.

Among the well established medicinal plants that are being cultivated the members were shown: Digitalis, belladonna, hyoscyamus, convallaria, rheum, humulus, calamus, iris, colchicum, valerian, calendula, peppermint, spearmint, cannabis, conium, caraway, and fennel, all growing well and many of them in bloom.

Of American drug plants that are being experimented with the members had the pleasure of seeing hydrastis, spigelia, ginseng, podophyllum, sanguinaria, geranium, rhus glabra, collinsonia, cascara, gaultheria, cypripedium and many others growing freely in the open field or under shade quite independent of their usual surroundings.

Among the perfume plants that are being experimented with, special attention was directed to a new hybrid rose that is claimed to have an unusually long flowering period and should prove of interest as a possible source of rose water and oil of rose.

Another particularly interesting possibility is embodied in an indigenous mint, mentha citrata, which is being cultivated on quite a large scale and has been found to yield an oil that is practically identical with oil of lavender.

The economic possibilities of investigations of this kind were further emphasized by Dr. True, who pointed out that man, working in nature's laboratory, could no doubt accomplish immeasurably greater feats than have, as yet, been accomplished in the laboratory of the chemist, and that working with nature had the very great advantage of economy so far as the raw materials was concerned. As an illustration of the futility of the chemical laboratory permanently competing with nature, he pointed out the impracticability of economically producing synthetic camphor even at the present time, and asserted that turpentine, the basis of synthetic camphor, was rapidly increasing in value while camphor itself because of its wide spread cultivation would no doubt decrease in price still further.

All of the members present were loud in their praise of what they had seen and heard, and expressed themselves as being particularly grateful to Messrs. Butterfield, True and Van Fleet for the large and varied amount of information that had been given them.

Montgomery County (Pa.) Association.

The annual meeting of the Montgomery County (Pa.) Retail Druggists' Association was held at Norristown, April 13th.

An exceptionally large number of members was present, to take part in a promised discussion of legislative matters.

After a thorough discussion of the pending legislation pertaining to the drug trade—the Fahey bill and the pharmacy act—the association unanimously passed a resolution protesting against the passage of the former measure. Christopher Koch, vice-president of the Pennsylvania board of pharmacy, and president of the Philadelphia Association of Retail Druggists, was the guest of the meeting, and after he had explained the extensive amendments that had been made to the proposed pharmacy act by the legislative committee of the Pennsylvania Pharmaceutical Association earlier in the week, the association passed a resolution endorsing the pharmacy act as amended.

The election of officers resulted as follows:

President, Dr. W. H. Reed; first vice-president, M. M. Osborne; second vice-president, Dr. Theodore Jacobs; secretary, L. W. S. Jones; treasurer, Samuel N. Yeakle. Executive committee: Walter Rothwell, Frank Prickett, Harry Stallman, Thomas F. McCoy, and W. L. Harbaugh.

Prof. William Simon, for many years professor of chemistry at the Maryland College of Pharmacy, has been ill of typhoid fever. His condition is reported to be much improved, and his recovery is looked for, although he is now well advanced in years.

News of the State Associations.

June Meetings of State Associations.

ARKANSAS, 13th to 15th, at Little Rock.
 COLORADO, 20th to 22d, at Manitou.
 CONNECTICUT, 13th and 14th, at Indian Neck (Branford).
 DELAWARE, 1st, at Wilmington.
 FLORIDA, 14th and 15th, at Tampa.
 GEORGIA, 13th and 14th, at Indian Springs.
 ILLINOIS, 6th to 8th, at Rock Island.
 INDIANA, 13th to 15th, at Indianapolis.
 IOWA, 6th to 8th, at Davenport.
 MAINE, 28th to 30th, at Kineo.
 MARYLAND, 27th to 30th, at Blue Mountain House.
 MICHIGAN, 6th to 8th, at Ann Arbor.
 MISSISSIPPI, 13th and 14th, at Greenville.
 MISSOURI, 13th to 15th, at Cape Girardeau.
 NEBRASKA, 13th to 15th, at Fairbury.
 NEW HAMPSHIRE, 27th and 28th, at The Weirs.
 NEW JERSEY, 13th to 16th, at Asbury Park.
 NEW YORK, 20th to 23d, at Alexandria Bay.
 PENNSYLVANIA, 20th to 23d, at Bedford Springs.
 TEXAS, 20th to 22d, at Dallas.
 UTAH, 21st and 22d, at Ogden.
 VERMONT, 20th to 22d, at Burlington.
 WISCONSIN, 27th to 30th, at Elkhart Lake.

District of Columbia Association.

At a meeting held at Washington, April 27th, the District of Columbia Retail Druggists' Association re-affirmed its affiliation with the National Association of Retail Druggists.

The following officers were elected: President, T. H. Atkinson; vice-president, G. W. Hurlebaus; treasurer, W. A. Evans; secretary, C. J. Fuhrmann; executive committee, F. P. Weller, H. C. Easterday, A. C. Taylor, W. R. Hill, C. B. Campbell, A. N. Connor, W. H. Bradbury, S. L. Hilton, C. E. Gross, W. T. Kerfoot, and W. P. Herbst.

Alabama Association.

The thirtieth annual meeting of the Alabama Pharmaceutical Association was held Tuesday and Wednesday, May 16th and 17th, at Birmingham.

The meeting was opened at 8 p. m. Tuesday in the Chamber of Commerce auditorium, by President J. E. Roe, of Mobile, a large number of members being present.

The association was welcomed by John L. Parker, chairman of the entertainment committee, who extended the courtesies of the local pharmacists to the visiting members in his usual taking manner and assured them of the pleasure which the citizens of Birmingham would derive from their stay. The address of Mr. Parker was responded to by J. W. Durr, of Montgomery, who acknowledged the cordiality with which the members had been received. Following the response to the welcome address the chair called on C. P. Kearfott from the Virginia board, and J. J. Keane and Burton Casady, of the Indiana board, who were attending the meetings, and they responded with a few brief remarks.

On Wednesday morning routine business was disposed of and papers were read by A. C. Cain, of Decatur, and Carl Horton, of Huntsville.

At the concluding session held Wednesday afternoon officers for the ensuing year were elected, as follows:

President, W. P. Thomason, of Guntersville; first vice-president, John Adams, of Birmingham; second vice-president, E. C. Andrew, of Montgomery; treasurer, L. F. Ravonscraft, of Union Springs; secretary, W. E. Bingham, of Tuscaloosa. Members of the executive: S. A. Williams, of Troy; Frank Carrels, of Gadsden; and W. P. McDairmid, of Talladega.

Montgomery was selected as the place for the next meeting.

Much of the afternoon session was devoted to discussion of alleged violation of the pharmacy laws. Mr. Bingham, who is a member of the board of pharmacy, said that a most vigorous effort would be made to prevent the illegal sale of narcotic drugs and the practice of pharmacy by unlicensed persons. "We are tired of having these matters which are of such a grave nature dismissed by the grand juries," said Mr. Bingham, "so we have employed inspectors and legal counsel in order to put a stop to this serious offense. It is not alone in Birmingham that we find so-called druggists violating the phar-

macy laws, but all over the State, and these will be brought before the courts and prosecuted sooner or later."

The members of the association were entertained at luncheon on Tuesday afternoon by the Doster-Nottingham Drug Company, after which they were taken by trolley to see the model city of Corey. Wednesday night a banquet was given at the Hillman. John L. Parker was toastmaster; and among the speakers were: W. P. Thomason, W. E. Bingham, J. E. Roe, J. W. Durr, A. C. Lee, Terry Griel, C. P. Kearfoot, J. J. Keane and Burton Cassady.

Louisiana Association.

The twenty-ninth annual meeting of the Louisiana Pharmaceutical Association was held at New Orleans, in the rooms of the Drug Club, beginning Tuesday May 9th.

The meeting was called to order by President John E. Scott, prayer was offered by the Rev. A. R. Edbrooke, and the "freedom of the city" was given by his honor, Mayor Martin Behrman, who said, in part, "It is always a pleasure to welcome visitors, especially when they are from our own State. Our lives depend to a certain measure on the ability of the pharmacists and for that reason I have the highest regard for your association." The welcome of the Mayor was most cordial and closed with an appeal to the members to work in unison for the benefit of the State.

William M. Levy responded. He tendered the thanks of the association to the Mayor and spoke of the importance of pharmacy, claiming that more laws were needed to advance it to protect the public as well as the druggists.

The Rev. Mr. Edbrooke addressed the meeting in a happy vein, saying that he was himself an ex-pharmacist and held a certificate in England; therefore he was able to sympathize with their troubles. Accuracy was the keynote of his address, and was applied to the private life of his hearers as well as to their professional work. "There is no body of men the world can look to for more than from you," was one of the forceful statements.

Addresses were also made by F. C. Godbold, representing the American Pharmaceutical Association; by C. D. Sauvinet, of the National Association of Retail Druggists; by G. O. Bergeron, of the National Wholesale Druggists' Association; by Adam Wirth, of the New Orleans Pharmaceutical Association; by M. Stolzenthaler, of the New Orleans Drug Club; and by H. M. Rickets, of the Louisiana Retail Drug Clerks' Association.

After the addresses an informal welcome was given the delegates and F. A. Capdau then made a general response on behalf of the association.

At the second session held Wednesday morning, President Scott delivered an address. He referred to much good work that had been done in the way of enacting pharmacy laws. Among these he mentioned the regulation of traffic in insecticides, the passage by many States of anti-narcotic laws, that of Louisiana being particularly gratifying. In speaking of the successful launching of the New Orleans College of Pharmacy, he said that the organization was peculiarly interested in it for the reason that every worker for the success of that institution was an active and loyal member of the State pharmaceutical association. The Louisiana board of pharmacy, he said, was one of which the association feels justly proud, and he hoped the day was not far distant when Louisiana certificates would be recognized in every State in the union.

The address closed with appreciation of the officers who had served with him.

Reports were made by the vice-president, the treasurer, the secretary, the corresponding secretary and by various committees as follows: Executive committee, Geo. V. Claren, chairman; trade interests, R. H. Gibson, M. D.; pharmacy and queries, A. Fly; legislation, P. A. Capdau; adulteration and deterioration of drugs, Prof. J. J. Grasser; pharmaceutical education, M. T. Breslin; membership, Ed. Guste; entertainment, J. T. Baltar; memorial, G. G. Dautry; transportation, A. T. Wainwright; exhibit, W. P. Duplantier. The report of the membership committee was an interesting feature of the session. It showed a rapid growth of the association. The membership at the present time numbers 182, of whom 117 are city pharmacists and 65 country members.

After the reading of the reports an illustrated lecture was given by Dr. F. O. Northey, who took as his subject "Biological Products."

In the afternoon the association was entertained at luncheon by Sharp & Dohme.

Wednesday night the members and their friends at-

tended the commencement exercises of the New Orleans College of Pharmacy, at the Tulane theater.

Thursday was devoted to an excursion on the river, extending some thirty miles up, at which point a base ball game was played between members of the association and of the New Orleans Drug Club.

The concluding session was held on Friday. Routine business was disposed of and officers for the ensuing year were elected as follows:

President, A. di Tripani; first vice-president, W. E. Allen; second vice-president, Geo. V. Claren; treasurer, Geo. S. Brown; recording secretary, Geo. W. McDuff; corresponding secretary, F. W. Morgan (of New Orleans). Executive committee: Gus Seeman, Adam Wirth, John E. Scott, W. E. Harter and M. Stolzenhaler. The committee will select its chairman.

New York Association.

This year's session of the New York State Pharmaceutical Association will be held at the Thousand Island House, Alexandria Bay, June 20th to 23d. The committee on transportation has secured a concession from the trunk line officials so that a round-trip rate of one and three-fifths the single fare will obtain. Rooms at the headquarters' hotel will be \$3 a day for each person; with bath, \$1 a day extra.

None need here be told of the national attractiveness of the Thousand Islands, so well called the "Venice of America." Alexandria Bay is one of the most charming spots in that region of scenic beauties, and on every hand are natural pictures which never tire the eye. The local committee has planned a very enjoyable round of entertainment, in which the annual baseball game occupies a not secondary position.

Local Secretary C. N. Cook, of Alexandria Bay, will look after reservations for and otherwise take care of those telling him in advance of their intention to attend the meeting.

Pennsylvania Association.

Beautiful Bedford Springs will this year again be the meeting place of the Pennsylvania Pharmaceutical Association. The sittings of the thirty-fourth annual meeting will begin there June 20th and continue until the afternoon of the 22d. To supplement the enjoyableness of the natural surroundings the entertainment committee has arranged all the essentials for a gladsome occasion.

As usual the committee on papers and queries has been busy beforehand and under Chairman F. P. Stroup, 145 North Tenth street, Philadelphia, has compiled the following list of subjects and submitted it to the members with the request that each select a subject and notify the chairman:

1. Wanted: A satisfactory formula for making silver nitrate pills, the literature on the subject seeming quite meager.
2. Use of modern synthetics in perfuming toilet preparations.
3. To what extent should the pure food law standards permit use of methyl salicylate, benzaldehyde, anethol, cinnamaldehyde and other odoriferous synthetics in the manufacture of flavoring essences, such as those of wintergreen, bitter almonds, etc.?
4. Use of Laval and other forms of cream separators in clarifying pharmaceuticals.
5. How may the pharmacists of the smaller towns get and hold the barbers' trade for bay rum and other toilet preparations?
6. To what extent is heroine being used as a habit-forming drug?
7. Is it practicable for retail pharmacists to make physiological assays of such drugs as can only be assayed by that method?
8. May a resin of podophyllum made with acetone be properly dispensed for the U. S. P. resin, which is made with alcohol?
9. Does alcohol made from molasses conform to the U. S. P. requirements for alcohol, and may it be used in the place of grain alcohol in official preparations?
10. Many pharmacists buy their distilled water from the wholesale houses. To what extent does such distilled water meet the U. S. P. tests?
11. Wanted: A formula for a satisfactory liquid toilet soap, and ideas as to the best methods for dispensing it.
12. Wanted: Several papers on the advantages and disadvantages of indemnity insurance against suits for damages growing out of poison sales, etc.
13. Advantages which accrue from discounting all bills.
14. Salvarsan; demonstration of methods by which it may properly be prepared for use.
15. Since the dispensing physician seems to be growing more and more numerous, what is the pharmacist to do to compensate for the consequent loss of prescription business?
16. Should the retail pharmacist with a small volume of business manufacture his own fluidextracts, tinctures, elixirs, ointments, etc.?
17. Should the retail druggist give discounts on occasional

emergency orders from physicians who ordinarily buy their supplies from the physicians' supply houses?

18. How may a pharmacy be conducted successfully in a rural town?

19. What is the average length of time that steel soda fountains are serviceable? How often should such fountains be sent to the manufacturer for inspection and repairs?

20. Would it not be better to use benzoinated lard instead of petrolatum in making unguentum hydrargyri dilutum?

21. Wanted: Method for detannating wines, one that does not modify or destroy the flavor of the wine.

22. In your opinion is hypophosphorous acid really essential for the preservation of syrup of ferrous iodide? Give us your experience.

23. A comparison of kieselguhr with talc and other filtering media used, according to various editions of the U. S. P., in the preparation of aromatic waters.

24. Wanted: A perfect ointment base, one not tending to rancidity and yet readily absorbed.

25. The Sunday closing movement: is it gaining or losing in your neighborhood? To what extent?

26. Is it true that a large percentage of the adulterated essential oils on the market is due to pharmacists' demanding such products at prices below the actual cost of production of a pure article?

27. To what extent is it true that the drug clerk of to-day is either dishonest or a "dope fiend"?

28. Your clerk; is he an asset or liability; to what extent does he reflect kindnesses shown him; does it pay to allow him commissions on sales?

29. Methyl alcohol; its history, its physiological action, record of fatalities, etc. Is the chemically pure article any less poisonous than the common?

30. Unusual phenomena of precipitation or discoloration have you noted during the past year in your dispensing or manufacturing practice?

31. Which of the generally used synthetics might properly be considered as belonging among the habit-forming drugs?

32. Should registered pharmacists compound mixtures that are detrimental to health for vendors to peddle from door to door?

33. How can the retail pharmacist protect himself against the inroads made in his business, especially in small communities, by vendors of flavoring essences, toilet preparations, etc., who secure their supplies from the mail-order houses?

34. Medical practitioners may now avail themselves of post-graduate courses of instruction. Should not such courses be established for pharmacists, also?

35. Is the soliciting of clinical laboratory work (such as urinalysis, examination of sputum, etc.) from the public, properly within the province of the pharmacist?

36. To what extent should a regular course of lectures in pharmaceutical ethics be made a part of the curriculum of our colleges of pharmacy?

37. Wanted: A table showing the advance in cost of drugs and chemicals directly due to the operation of the federal food and drugs act.

38. Would it be practical for a number of pharmacists in a given locality to co-operate in establishing and maintaining a well equipped scientific laboratory for making and standardizing assayable preparations, and also for analytical, bacteriological and clinical analysis for physicians?

39. Wanted: Several papers on current pharmaceutical legislation.

40. Is it true, as has been stated by one observer, that beet sugar is sweeter than cane sugar, and that, while cane sugar may readily be powdered fine enough to pass through a No. 80 sieve, beet sugar can not? Why?

41. To what extent is the pharmacist's personality a business asset?

42. What benefits are derived by the country pharmacist from membership in his State Association?

43. Is the practice of pharmacy being restricted too much by national and State laws?

44. What penalties should be meted out to the substitutor?

45. Is anything permanently gained by Sunday selling from soda fountains?

46. To what extent dare general or other stores employing no registered pharmacist fill orders for family receipts, etc.?

47. An employer's experiences with clerks, serious and humorous.

48. A clerk's experiences with employers, serious and humorous.

49. The bright side of life behind the counter.

50. Why should labels under which drugs are sold that are not of official standard strength carry a statement of how they differ from the U. S. P. or N. F. standard or formula?

51. What is the best method of ascertaining the amount of knowledge a college student has absorbed?

52. Is it not about time for schools of pharmacy to discontinue the conferring of degrees and issue in lieu thereof a certificate of instruction received?

53. Is it feasible to form an arrangement by which physicians would discontinue dispensing and pharmacists cease recommending medicinal remedies?

54. Would it not enhance both pharmacy and medicine if physicians ceased dispensing, and the manufacture and sale of proprietary medicines were prohibited?

55. Ethyl alcohol of superior purity is produced from phytolephas macrocarpa (corozo nuts or vegetable ivory). To what extent is this industry carried on in this State?

56. Could the so-called "blue law" of Pennsylvania be so amended as to eliminate its absurdities, yet not result in bringing about that condition best described as "the Continental Sabbath"?

57. When formulas are identical, can it be considered substitution to dispense "A. B. & Co.," when Y. Z. & Co. is specified?

58. Is there a legitimate demand for essence of pepsin of a lower digestive power than the official preparation?

59. Does the general public appreciate why it should patronize pharmacists in return for the manifold benefits it enjoys as the result of unselfish efforts put forth by pharmacists to pro-

teer it from incompetents, impostors, adulterators and exploiters? If not, what means can you suggest whereby the public may be interested in the claims of the pharmacists for preferential consideration in commercial transactions? (Submitted by the chairman of the commercial section of the American Pharmaceutical Association in accordance with a provision of the A. Ph. A. by-laws, chapter X, article 2, which requires the submission of a question to each State association for discussion at its annual meeting.)

Meeting of the Trustees of the Pharmacopœial Convention.

The annual meeting of the trustees of the United States Pharmacopœial Convention was held at the office of Prof. Remington, May 5th and 6th, all the members being present.

Probably the most interesting report presented was that of the sub-committee on scope. It was stated that the committee had practically completed its work, and that the executive committee would within a few days receive the full list of drugs, chemicals and preparations it proposed for admission to the new Pharmacopœia. This committee presented a preparatory list six months ago of the preparations which all agreed should be admitted.

The board appropriated funds for use in paying necessary expenses in the work of revision incurred by members of the executive committee.

It decided to withdraw from sale those copies of the Pharmacopœia in which additions and corrections have not been incorporated in the text.

It was reported that an inventory had been prepared of all of the articles of permanent value purchased since 1900. A record is being made of the location and condition of these articles. Insurance had been taken out on the electroplates for both the Spanish and English editions of the Pharmacopœia which are in the hands of the publisher; also, on the copies of both the English and Spanish editions of the book which are on sale in the hands of agents.

An auditing committee examined the accounts of the treasurer, Samuel L. Hilton, and of the secretary, Dr. H. M. Whelpley and found the same correct. The following is a summary of the same for the fiscal year ended April 30th:

RECEIPTS.		
Balance from treasurer, 1900-1910.....	\$8,394.01	
Sales, English edition.....	6,188.02	
Sales, Spanish edition.....	1,169.35	
Receipts from use of text.....	290.00	
Interest on deposit.....	171.93	
	\$16,213.31	
EXPENDITURES.		
Convention 1910.		
Supplies	\$79.70	
Printing	53.25	
General	15.73	
Stereographic report.....	375.38	
Clerical	198.00	
Abstract	345.17	
	\$1,067.23	
Revision.		
Clerical	\$1,847.50	
Meetings	13.89	
Supplies	1,140.97	
Postage and telegrams.....	146.88	
Experts	52.60	
General	112.67	
	\$3,314.51	
Publication and Sales.		
English edition.....	\$1,958.56	
Spanish edition.....	271.12	
General	9.00	
	\$2,232.68	
Administration.		
Meetings	\$330.10	
Clerical	666.00	
Supplies	154.65	
Postage and telegrams.....	67.50	
General	41.53	
	\$1,259.78	
Cash on hand.....	8,339.11	
	\$16,213.31	

The members of the board of trustees, as constituted by the convention of May, 1910, are:

James H. Beal, Henry M. Whelpley, Frederick W. Meissner, Jr., William Jay Schieffelin, and George H. Simmons. Joseph P. Remington and Harvey W. Wiley are ex-officio members.

Misfortune met two travelers, and swelled to twice his size; one, cowering, groaned, "Alas, this hour!" and fell, no more to rise. The other climbed the ugly shape, saying, "It's well you came!" And made misfortune serve him as a stepping stone to fame.—A waif.

Patents on Suprarenal Active Principle Upheld.

In a final hearing on the validity and alleged infringement of the Takamine patents on glandular extractive products in the action brought by Parke, Davis & Co., of Detroit, against the H. K. Mulford Company, of Philadelphia, Justice Hand of the United States circuit court for the Southern District of New York, found for the complainant on nine of the sixteen claims in the patent specifications in question, in one cause of action, and on four of the eight claims in the other cause. Not all of the claims of either patent were in issue. The case had to do with adrenalin and adrin,—products of the complainant and defendant, respectively. The powder or dry form of the suprarenal active principle and the commercial solutions of the borate of the principle with preservatives were both in question and the court ruled that with regard to both forms there was an infringement.

It was contended that the product made under the patent did not comply with the specifications in regard to freedom from "inert and associated gland tissue," but the court held that the other substances present were not "inert and associated gland tissue."

The court was of the opinion that the presence of organic impurities did not differentiate two products. In this connection the court also considered the melting points of both products and interpreted the phraseology of the specifications so as to preclude a claim for material difference being based on a slight difference between the two melting points. And it was held that the similarity of the processes being considered together with the practical uses of each substance, and the approximation of result physiologically, the two were near enough to be an infringement one of the other.

With reference to solutions of the active principle, the court held that the patent covering these products embraced solutions in general without any regard to their stability or the presence of preservatives.

In the matter of alleged anticipating inventions invalidating the patent, the court called attention to the fact that the active principle per se was not the patented product. He also showed that the phraseology of the specifications could not be interpreted to cover the product of the processes of the same patents referred to specifically as such. The claims, said the court, did not cover the salt of the principle, but rather excluded such, and the alleged anticipating products had never existed except in the form of a salt.

With regard to the prior use of the substances patented, although not in the form of the active principle, but as a component of the glandular substance, the court was of the opinion that the difficulties of the old products was such a handicap to their use therapeutically that the improvement afforded by the isolation of the active principle made its discovery novel.

It was held that the claims of the patent, although broad, were not vague and did not embrace fraudulent reduplication. Such claims, in the court's opinion, should be as broad as possible without including particulars that were not to be covered by the patent. In summing up the court ruled that if any one of the specified differentia of the claims was missing in the defendant's product, the latter did not infringe, and that if any of the alleged anticipating products included all the differentia the claim to the patent was invalid. In his opinion the evidence did not warrant the conclusion that these foregoing surmises were correct.

The case has been appealed.

Manufacturing Perfumers' Association.

The seventeenth annual meeting of the Manufacturing Perfumers' Association was held at the Drug and Chemical Club, this city, April 18th to 20th. There was a large attendance of members, active and associate.

The president of the association, Frank B. Marsh, of this city, presided. Among the recommendations of an address made by him was one looking to the formation of a library of books relating to the history and manufacture of perfumes which might be placed in charge of some public library; another proposed the establishment of a museum of perfume materials.

The report of the secretary, Edwin Ross, showed that the total membership at the time of the meeting was 111, made up as follows: Active, 30; associate, 78; honorary, 3.

The report of the treasurer, A. B. Calisher, gave in detail the financial transactions of the association for the

year ended April 18th. The receipts were \$2,909.88 and the expenses \$2,371.02. The association has a surplus fund of \$3,982.13.

Papers were read on "The Regulation of Express Companies," by Frederick B. de Berard; on "Saving the Worthy Debtor," by George H. Williams; on "Some Practical Results Obtained by Scientific Management," by James Newton Gunn; and on "Our Commercial Interest in Latin America," by Prof. William R. Shepherd.

Officers were elected for the ensuing year as follows:

President, Frank B. Marsh, of New York; first vice-president, William A. Bradley, of New York; second vice-president, S. S. West, of Cleveland; secretary, A. D. Henderson, of New York; treasurer, A. B. Calisher, of New York; executive board, Theodore Ricksecker, F. M. Carpenter, D. H. McConnell, J. Clifton Buck, A. M. Spiehler, and James E. Davis.

Meeting of the Proprietary Association.

May 24th to 26th the Proprietary Association of America held its twenty-ninth annual convention at the Hotel Astor, in this city. The attendance was larger than at any previous meeting for several years back and as usual at most of the sittings was limited to members only.

It has been the custom of the association not to print reports of its proceedings and the question as to whether or not the proceedings of the meeting just held will be printed was referred to the executive committee with power to decide. In an address which lasted some three hours G. L. Douglass, counsel of the association, outlined his work for the association.

The election of officers resulted as follows: President, F. J. Cheney, of Toledo, O.; vice-presidents, A. H. Beardsley, of Elkhart, Ind., and W. H. Gove, of Lynn, Mass.; secretary and treasurer, O. C. Pinckney, of New York; executive committee, J. F. Hinds, of Baltimore, Md.; R. R. Land, of Binghamton, N. Y.; D. M. Newbro, of Detroit, Mich.; J. A. Patten, of Chattanooga, Tenn.; Dr. J. B. McFatrach, of Chicago, Ill.; W. E. Weiss, of Wheeling, W. Va.; and V. M. Pierce, of Buffalo, N. Y.

New York German Apothecaries' Society.

A well-attended meeting of the New York German Apothecaries' Society was held May 4th, President Kleinau in the chair.

Mr. Roller, chairman of the scientific committee, reported on the last scientific social evening, stating that 130 persons were present. He announced that Dr. G. Drobegg, who had intended to speak on "Electrolysis," was prevented from being present. Mr. Roller suggested that in place of a lecture the members discuss interesting cases in pharmaceutical practice, mentioning several subjects which he thought worthy of treatment. He asked the members to come prepared for such a discussion at the next meeting.

Dr. von Oefele then entertained the members with an account of many interesting facts, partly from his own experience.

Mr. Swan, chairman of the legislative committee, reported on the bills at present before the legislature which are of interest to pharmacists.

He asked members not to push any preparations which are prepared by firms in which physicians are pecuniarily interested.

Mr. Gilbert, chairman of the entertainment committee, reported on the arrangements of the trip to College Point on July 6th.

President Kleinau told the members of the death of Mr. B. G. Amend, and asked the members to honor their fellow-member for many years by rising from their seats.

After the president had greeted the new members who for the first time attended a meeting, and had announced that eight candidates had been elected and seven proposed, the meeting adjourned.

Many members of the society, some accompanied by their wives, made a visit on May 17th and 18th to the laboratories of Sharp & Dohme at Baltimore. The visit was the outcome of an invitation which Dr. A. R. L. Dohme had extended to the members some years ago while lecturing before the society. The party was welcomed by Dr. Dohme, the vice-president, Mr. Sailer, the general manager, and several employees of the firm, and conveyed in special cars to the Hotel Caswell, where accommodations for the visitors had been provided. After supper the party

enjoyed a performance at the Maryland Theatre. The following morning the laboratories were visited. At noon the visitors were taken on a sight-seeing tour in automobiles through the city, the parks and adjoining suburbs and many places of interest were pointed out. At three o'clock a dinner was given them at the Baltimore Country Club, and then the well-known German "gemüthlichkeit" came to the front. Mr. Gilbert acted as toastmaster, the speakers of the evening being President Kleinau, Dr. Dohme, ex-President Hirseman, Dr. Alpers, Mr. Hynson and others.

The number of guests was more than 200.

New York Retail Druggists' Association.

The New York Retail Druggists' Association met on April 28th, at Westminster Hall. The meeting was well attended. Two new members, Paul J. Gillman and Alexander Krakower were added to the list.

A communication from Mr. Cook for the New York State Pharmaceutical Association in regard to the expenditures on entertainment during the coming convention was read and action on it was forthwith taken by passing a resolution to contribute \$50 for that purpose. A letter was read in which notice was given that the meeting of the association would take place June 20th to 23d, sooner than the date originally set.

Mr. Healy, representing Mulford & Co., was granted the privilege of the floor and explained fully how it happened that his house became involved in the *World* "exposure."

A paper was read by J. L. Lascoff entitled "A Comparative Resumé of the Different National Pharmacopœias," and twelve copies of the various Pharmacopœias, some in their original language, others in translation, were brought to the meeting for the inspection of the members. The author dwelt on the fact that some well known remedies adopted by some Pharmacopœias are not given recognition by the others; that some galenicals, the worth of which is never denied, and which are very often prescribed, are not found in all the books. He noted the special rules given by the Russian Pharmacopœia for keeping poisons under lock and key, and how the law required the prescribing physician to place an exclamation mark after the dose if such be above the maximal according to the table annexed to the book. The main object of the author was to advise the pharmacists who are practicing in a cosmopolitan city to familiarize themselves with the foreign Pharmacopœias, since prescriptions from doctors who are graduates from abroad and who adhere to their respective home Pharmacopœias are coming into the stores very often and, in order to fill their prescriptions correctly, the nature of such foreign preparations must be learned by the pharmacists.

Mr. Lascoff was given the thanks of the association, and in the discussion that followed many members participated.

Dr. Joseph Weinstein then began to talk on the pharmacy law, and his contention that in face of the multitude of laws that surround the pharmacist he may at times become puzzled and be in error as to what he may and what he may not do, was proven true when he began asking questions on the rights of the junior clerk in the absence of the registered man, and on the subject of registration of poisons. In replying to each and every question the opinions were divided, thus illustrating that many a point in the pharmacy law wants an elucidation, and this Dr. Weinstein started to give in a masterly way. But as the hour was late the continuation of the subject was postponed for a future meeting.

J. J. Stephenson, 1880 Lexington avenue, this city, was the victim of a bit of highway robbery recently, losing \$25.

Early in March burglars visited the store of John Coleman, of Wheeling, W. Va., an ex-treasurer of the National Association of Retail Druggists, and took away with them about \$35 in cash and fountain pens, Havana cigars, silver-mounted pipes, high-grade toilet soap, and other fastidiously selected merchandise to the value of \$50.

Statistics given in the calendar of the Pharmaceutical Society of Ireland for the current year show that at the end of 1910 there were 860 pharmaceutical chemists qualified to practice in the Emerald Isle, as compared with 825 a year previously, 186 chemists and druggists, against 190; 567 registered druggists, against 555; and 129 assistants to pharmaceutical chemists, against 122.

A Proposed International Federation of Pharmaceutical Associations.

At the International Congress of Pharmacy held at Brussels last September a movement was initiated for forming an international federation of pharmaceutical associations. The Dutch Pharmaceutical Society was the prime mover in the matter, we are told, and provisional headquarters for the proposed federation have been established at The Hague.

What the federation should undertake to do is set forth in a series of draft propositions which have been published, which propositions follow:

1. Collecting data with regard to the practice of pharmacy in all countries.
 2. Studying the laws regulating the pharmaceutical profession.
 3. Giving advice and supplying data with regard to the laws relating to pharmacy.
 4. Organizing international pharmaceutical congresses.
 5. Filing the papers of these international congresses, arranging and working out of the subjects treated there, and studying fresh subjects for treatment.
 6. Making arrangements for participation in congresses of interest to pharmacy, and by collaboration with other international societies.
 7. Promoting uniformity in the formulation of requirements for education and tuition.
 8. Protecting the rights of the pharmaceutical profession.
 9. Working against the practice of pharmacy and the sale of medicines by unqualified persons.
 10. Promoting the prosperity of the national pharmaceutical societies.
 11. Promoting uniformity in the form of medicines and methods of investigation.
 12. Doing all other things that may be considered conducive to the attainment of the object of the federation.
- The office of the Secrétariat Général is at 4 Schenkweg, The Hague.

The Right of Privacy.

In a decision handed down May 1st the United States Supreme Court upheld the constitutionality of the New York statute which forbids any one to use a person's photograph for advertising purposes or in any other way to exhibit it publicly without the consent of the person represented. This decision was given in the case of a Brooklyn woman against the Speery & Hutchinson Company. Suit was brought alleging that the company had displayed a photograph of the complainant in one of its store windows in Brooklyn without the complainant's knowledge and consent.

The complainant was awarded damages of \$1,000 in the local court, and later the Appellate Division and the Court of Appeals of this State confirmed the lower court's verdict. This case has been in the courts since the fall of 1905, and its progress has been attended with a great deal of interest.

New Interstate Habit-Forming Drug Bill.

Mr. Mann has introduced in the United States house of representatives a bill "to regulate the transportation of habit-forming drugs in interstate and foreign commerce." The text follows:

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, that the term "interstate commerce" as used in this act shall include transportation by freight, express, mail or in any other manner between a place in any State, Territory or District of the United States, or place non-contiguous to but subject to the jurisdiction thereof, and a place in any other State, Territory or District of the United States, or place non-contiguous to but subject to the jurisdiction thereof, and the term "foreign commerce" as used in this act shall include transportation by freight, express, mail or in any other manner between a place in a foreign country and a place within or subject to the jurisdiction of the United States.

Sec. 2. That hereafter it shall be unlawful for any person to knowingly send or receive, directly or indirectly, himself or by servant, employee, agent, officer or otherwise, any opium, morphia, coca leaves, cocaine, alpha and beta eucaine, choral, cannabis or any derivative or preparation of any of them, in interstate or foreign commerce, except in accordance with the provisions of this act, and unless such person shall in every respect comply with the provisions of this act.

Sec. 3. That it shall be unlawful for any person to send or receive in interstate or foreign commerce any of the articles described or referred to in section 2 of this act, unless such

person shall keep a complete list of all shipments and receipts of such articles by such person in interstate and foreign commerce, which list shall furnish an accurate description of the article received or sent in interstate or foreign commerce, together with the quantity thereof and the name and address of the person from whom received or to whom sent, and which list shall be kept in such manner and form as shall be prescribed by the secretary of agriculture, and shall at all times be open to inspection by any United States or State employee designated for such purpose by the secretary of agriculture.

Sec. 4. That it shall be unlawful for any person to send or cause to be sent, either directly or indirectly, himself or by servant, employee, agent, officer or otherwise, any of the articles described or referred to in section 2 of this act, to any person other than a qualified practicing physician, dentist or veterinarian, a regular and legitimate manufacturer of or jobber or wholesale or retail dealer in drugs, or a hospital, college, scientific or public institution.

Sec. 5. That any person violating any of the provisions of this act shall for each offense be fined not exceeding \$1,000, or imprisoned not more than one year, or both.

Sec. 6. That nothing in this act shall be construed to repeal or affect any of the provisions of the act entitled "An act for preventing the manufacture, sale or transportation of adulterated or misbranded or poisonous or deleterious foods, drugs, medicines and liquors, and for regulating traffic therein, and for other purposes," approved June 29th, 1906.

The bill was referred to the committee on interstate and foreign commerce.

College Commencements.

Atlanta College.

Commencement exercises of the Atlanta College of Pharmacy were held in the Orpheum Theater, March 27th. The salutatory was made by William Ernest Sawyer, and the valedictory given by Thomas Henry Lander.

The degree of graduate in pharmacy was conferred on: A. G. Arapian, T. E. Anderson, J. L. Aven, C. J. Bible, C. A. Bynum, J. F. Beasley, J. T. Castleberry, G. A. Currie, J. E. Eaves, Max Freedman, J. V. Frederick, J. P. Grimes, Jay Gore, C. V. Gibson, James Hamilton, R. E. Howard, O. L. Hiett, C. Hixon, I. D. Houtz, R. M. Harper, O. E. Jordan, C. R. Jenkins, C. E. Liles, T. H. Lander, S. K. Lowry, T. E. Lowman, D. G. Mahon, Miss Clayton Mikell, V. H. Marechal, J. J. Moreing, H. T. Nelms, B. J. Parrish, H. J. Porter, J. G. Rawls, G. D. Sayle, A. C. Sawyer, W. E. Sawyer, C. D. Tedder, W. C. Touchton, O. G. Turner, C. K. Wheeler, and W. L. White.

The degree of pharmaceutical chemist was granted to: O. L. Hiett, James Hamilton, and R. F. Hixon.

Brooklyn College.

The exercises marking the twentieth commencement of the Brooklyn College of Pharmacy were held in the Baptist Temple, Thursday evening, May 11th.

The exercises were opened with prayer by the Rev. John Williams; an address was made by the Rev. Newell Dwight Hillis, D. D., prizes were awarded by first vice-president Clarence O. Douden (President Rehffuss being unavoidably absent); Prof. William C. Anderson, dean of the college, described the conditions of graduation; Prof. Percival Lohness read the list of graduates; and the valedictory was delivered by George M. Perry.

The degree of graduate in pharmacy was conferred upon the following candidates: Mario M. Abbene, Hyman Axelrod, Nathan Bachwitt, Adam S. Baczynski, Jacob Belkowitz, Theodore Blackman, Israel Bromberg, Samuel N. Burger, Joseph Bushel, Frank Carena, Michael Carlo, Carmine Cava, Walter C. Currey, Raymond De Angelis, B. Escover, Abraham Feinstein, Samuel Feiterson, Jacob Feldman, Harry Fried, Abraham Friedman, Benjamin Friedman, Leon Friedman, Julius Geiger, Charles L. Gesell, Jr., Nettie Giventer, Jacob W. Goldberg, Louis Goldberg, Nathaniel J. Goldberg, Jacob Greenberg, Max Goldsmith, Abraham Hoch, Maurice Horowitz, Joseph Itkind, Thomas G. Jaffe, Max Kalmanow, David Kaplan, Mordochy Kimmel, Morris Klein, Alexander Krone, Sebastian Karp, Solomon Lauter, Lemuel M. Lemelson, Ida Lesser, Joseph Lavitt, Hyman Levy, Morris Levy, Jennie Loeb, Abraham Lush, Harry Lessinger, William R. Markham, Samuel L. Mahl, Amelia L. Monaco, Guilio Marvello, Morris Moskowitz, Jacob Madoolman, Samuel Neham, Samuel Nirenblatt, Albert Ostroff, Harry Pachter, David Picker, George M. Perry, Benedict F. Pelonsky, Olga Praisner, Benjamin Promisloff, Samuel Rabinowitz, Benjamin Rappaport, Lucelle Rein, Benjamin Robins, Nathan Rogin, Leonard Rose, Moe Rosenbaum, Louis Rothenberg, Philip Rothenberg, Morris Rothstein, Donato Rossi, Samuel Saletan, David Saltz, Mary Schenck, Charles Shaitless, David Sheftelman, Rose Shuloff, Benjamin Siegel, Boris Schwartzman, Louis

Steinberg, Samuel Storch, Nathaniel Sternig, Samuel Strauss, Samuel Trager, Israel S. Turk, Frank Wallach, John Weinmann, Jr.; Benjamin J. Weiner, Morris R. Willner, William Wolf, Alexander Zeiger, George Zuckerman and Harry Zwilling.

The degree of doctor in pharmacy was granted to Harold T. Cartwright, Henry M. Giesselman, Jr.; Walter M. Hahn, Joseph R. Marino, Barnet Rosenhouse, Monroe H. Weil, and Samuel Wolf.

Prizes were awarded as follows: Senior gold medal, Samuel Saletan; senior silver medal, Israel Bromberg; senior bronze medal, Samuel Feiterson; Anderson pharmacy medal, Jennie Loeb; alumni microscope prize to Mordoochy Kimmel; post graduate gold medal, Samuel Wolf; junior silver medal, George A. Roscoe.

Chicago College.

The fifty-first commencement exercises of the University of Illinois school of Pharmacy (Chicago College of Pharmacy), were held at the Y. M. C. A. Central Auditorium, Chicago, Thursday afternoon, April 27th.

The principal address was made by Thomas H. Potts, secretary of the N. A. R. D. The class speakers were Thomas Ross, salutatorian, and George S. Churchhill, valedictorian.

President James conferred the degree of graduate in pharmacy upon the following:

Adolph Emil Anderson, Edwin John Backus, Carl F. Bode, Clifford Jerome Bower, Matthew Virgil Boutte, Bert Douglas Burley, George S. Churchill, Ben Lee Eicher, Anton William Fingl, Edgar Andrew Flynn, George Edward Franke, Lloyd Goveia, Edward Daniel Griffin, Edward Joseph Halfacre, Herbert Henry Heidebreder, Bernard James Hourigan, Ernest Theodore Jann, James Charles Keefrey, Reuben Leonard Lindstrom, Oscar John Machenheimer, Erwin Joseph Mark, Thompson Alexander Nooner, Michael Adalbert Pokorney, Rollo Bielby Sarginson, Benjamin Samuel Schildbarg, Charles George Schreiber, Edwin Joseph Setz, Harry Albert Sieben, William Adolphus Smith, Lou Archibald Watson, Harry Arthur White, Otto J. B. Wruck, John William Zellinger, Charles Patt Eck, Joseph Alfred Merrill, Clarence Oberg, Felix James Ratajik, Ruth-erford Gustavus Rosenstone, Charles Kraus Stulik, John Berger Anderson, Arthur Frederick Bagge, Roy Ernest Baker, Rush Arthur Brown, Arthur C. Corbin, William Arthur Herrick, Samuel May Hottar, Albert Philip Niemeyer, Henry Onno Peters, Warner Edmund Purcell.

Certificates were given the following: Stanley Clarke, Joseph Francis Hrejsa, Paul McCulloch Kepner, Orval Wilkie Lee, Chester Logan, Ernest Elmer Montgomery, Thomas Ross, William Sylvester White.

The prizes were awarded as follows: The Becker Prize, to Thomas Ross; the Biroth prize to L. A. Watson; A. Ph. A. membership to Reuben L. Lindstrom, B. S. Schildberg and Anton W. Fingl. Honorable mention for excellence in scholarship to A. E. Anderson and J. C. Keefrey.

Louisville College.

The commencement exercises of the Louisville College of Pharmacy were held at the Masonic Theater, Friday afternoon, May 21st.

The following candidates were graduated: Carl William Bader, James Edward Bass, Frank Moffett Brown, Joseph Adolphus Brown, Clarence D. Cunningham, James Baxter Frank, John E. Howley, Ralph Edward Julian, Anna Edmonia Keller, Franklin Stith Kinchloe, Harry Martin Merriman, Wilbur W. Morris, Benjamin Franklin, Frank Jacob Schweitzer, Jr.; Jesse Andrew Shaver, Harry Francis Pesel, Thomas P. Taylor, Jr.; and Paris L. Thomas.

New Jersey College.

Graduation exercises for the class of 1911 for the New Jersey College of Pharmacy were held in Krueger Auditorium, Tuesday evening, May 9th. An address to the graduates was made by Dr. Harvey W. Wiley. The awarding of diplomas was made by A. B. Poland, superintendent of public schools; and W. O. Kuebler, president of the college, read the roll of honor.

The members of the graduating class were: A. Bernardinelli, Paul D. Bloom, Rudolph Preitenfeld, Joseph E. Connolly, O. C. Hayes, Alfred Maier, Raphael Silber, Claude Van De Mark, Frank Walkenberg and Theodore Westerman, all of Newark; Morris H. Albach, of Elizabeth; W. G. Beucier, of Fort Lee; Emil Cataldi, of Orange; H. L. Debus, of Jersey City; Alexander Effros, of Paterson; Carl

Hoffmann, of Hoboken; Miss Helen Gluckman, of Jersey City; William J. Jordan, of Jersey City; Mortimer Kobelinsky, of Brooklyn; William G. Kroemmelbein, of Elizabeth; Richard Linehan, of Bloomfield; John T. Roe, of Paterson; Herman Strauss, of Elizabeth; Fred K. Thile, of West Hoboken; John Warzkiewicz, of Bloomfield; Joseph Weisberger, of New York city.

New Orleans College.

The annual commencement exercises of the New Orleans College of Pharmacy were held at the Tulane University Wednesday evening, May 10th.

The address to the class was made by James W. Porch, and the valedictory given by J. J. Gerache.

A. K. Lindsey received the alumni medal; E. J. Feahney, the faculty medal; and Thomas Cronan, of the junior class, the medal of the Louisiana Pharmaceutical Association.

The list of graduates follows: R. V. Armstrong, Herman H. Bierhorst, Andrew H. Bowmann, George V. Claren, Jr., Corrie C. Chapman, John R. Cooper, John E. Dixon, Juan Donestrevéz, Edward J. Feahney, Joseph J. Gerache, Jr., Max Graff, Oliver J. Hebert, Ashton R. Holloway, E. C. Kinder, Thomas I. K. Keoun, Lewis E. Koffskey, John B. Lavigne, Jr., A. Kent Lindsay, P. B. Manouvrier, Paul C. Mouton, Paulin J. Poche, C. E. Rielly, George A. Rojas, J. B. G. Canarens, Paul M. Schertz, Douglas V. Stuart, Hunter M. Todd, Segundo Toyas, Clarence J. Wichser, Lurline A. Wilson, William M. Windham and Guy L. Leefe.

New York College.

The eighty-first annual commencement exercises of the College of Pharmacy of the City of New York were held May 11th in Carnegie Hall. Vice-president C. F. Chandler conferred the degrees.

The alumni prizes were awarded by Dr. L. W. Geisler and the trustees' special prizes by Dean H. H. Rusby. The address to the graduating class was delivered by Dr. H. L. Taylor, of the department of education of New York State. C. W. Dunn addressed the class as valedictorian.

Prizes were awarded as follows: To E. D. Brooker, gold medal; Morris Arginteanu, silver medal; H. M. Dichter, bronze medal. Trustees' special prizes were given to Morris Arginteanu, H. M. Dichter and Frank Sansonne. On the roll of honor were Morris Arginteanu, Matthew Blair, J. T. Bongartz, F. J. Brannigan, E. D. Brookes, H. M. Dichter, C. W. Dunn, Samuel Fritz, John Garb, Isidor Kipuis, Samuel Klempner, Arthur Machol and Frank Sansonne.

The graduates in pharmacy were: S. A. Applebaum, Morris Arginteanu, Marion Astarita, Harry Balloff, B. H. Berning, Matthew Blair, Louis Breinin, E. D. Brookes, B. F. Charles, M. M. Cashan, R. L. Conklin, L. P. Costa, Solomon Domovsky, Samuel Dreyer, C. M. Driesen, Robert Filice, Samuel Finegold, Jacob Friedland, Samuel Fritz, John Garb, Jacob Goldberg, Solomon Greenbaum, Rose E. Greines, H. L. Hermes, Morris Kalish, J. V. Keyrouse, Isidor Kipuis, Samuel Klempner, Paul Taccorn, Philip Lacovara, C. E. La Gambina, F. W. Langen, Solomon Leder, Lillian Leiterman, Alexander Lichtner, Nicholas Lombardi, J. J. Loughlin, Arthur Machol, Giocchino Madonna, R. J. Melamade, J. D. Miller, Jacob Morgulis, Solomon Morris, Vincent Pica, Meyer Picker, Hyman Relin, A. A. Romano, Frank Sansonne, Israel Schwartz, J. J. Slofkin, Maurice Stein and W. E. Warner, all of New York.

George Alliton and J. T. Bongartz, both of Kingston; Samuel Bearman, of Hoboken, N. J.; E. H. Berry, of Malone; F. J. Brannigan, of Ware, Mass.; Louis Caggiano, of Utica; J. V. Cariffe, of Tuxedo Park; J. J. Cassidy, of Port Perry, Ont., Canada; F. D. Coleman, of Dover, N. J.; M. P. Cote, of Baltic, Conn.; H. M. Dichter, of Brooklyn; G. W. Dickie, of Morristown, N. J.; W. I. Dillingham, of Bernick, Me.; Frank Donohue, of Turners Falls, Mass.; W. H. Doolittle, of Far Rockaway; C. W. Dunn, of Jersey City, N. J.; L. H. Fried, of College Point, L. I.; Harold Goldstein, of Brooklyn; C. D. Hakes, of Orange, N. J.; B. A. Hamelin, of Champlain; E. N. Hammond, of Southampton, L. I.; H. T. Hughes, of Utica; F. L. Hunt, of Smithtown Branch, L. I.; P. S. Kneeland, of Newark, N. J.; H. G. Krepfel, of Brooklyn; W. A. Lenrow, of Newark, N. J.; L. G. Linford, of Liberty; John McKeown, of South Amboy, N. J.; Ernest McWhorter, of Highland Mills; Andrew Makaas, of Brooklyn; B. I. Marquez, of Pese, Panama; Philip Mazzoni, of Town of Union, N. J.; Harry Miller, of Portchester; Leon Monell, of Binghamton; Henry Miller, and S. I. Miller, both of Brooklyn; Solomon

Neiman, of Yonkers; O. J. Neundorfer, Jr., of Albany, Ga.; G. B. Noble, of New Milford, Conn.; H. A. Pietri, of Ponce, Porto Rico; G. L. Rogers, of Antwerp; Morris Salomon, of Brooklyn; G. W. Short, of Calais, Me.; Emil Steiert, of Astoria, L. I.; D. S. Treat, of Seymour, Conn.; A. E. Wick, of Utica; Theodore Weicker, of Stamford, Conn.; Samuel Wilkinson, of Livingston Manor; and Fred Gendell, of Rye.

The graduates in the food and drug analysis class were Ephraim Freedman and Miss Fannie Hart, both of New York city.

The officers of the graduating class were: President, W. E. Warner; vice-president, F. J. Brannigan; secretary, L. M. Monell; treasurer, D. S. Treat; historian, Harry Miller; reporter, H. G. Kreppel; and valedictorian, C. W. Dunn.

Northwestern University.

At the commencement exercises of the Northwestern University School of Pharmacy held April 13th the degree of graduate in pharmacy was conferred on the following class:

Charles C. Anderson, Lee Henry Andre, David Baxter, Edward V. Boarini, Roy E. Buck, Leo M. Cady, L. Bruce Campbell, Jay J. Cook, Robert E. Coughlan, Eugene F. Daudein, Harold P. Derebey, Robert W. Donaldson, Harry M. Donichy, Madison C. Donnell, C. S. Eftaxopoulos, Samuel Eppelsheimer, Charles I. Gimbel, Jack P. Halliwell, Selmer H. Hanson, Thomas F. Heffernan, Alfred Hendrickson, Waldemar H. Hendrickson, Fred Le Roy Hill, Herbert E. Hillebrecht, Clifford P. Hoaglund, Oscar H. Johanson, Bert N. Johnson, Melvern L. Johnson, Edward S. Kaufmann, Albert J. Kohlman, Raymond R. Little, Carl A. Mackh, H. Farris Miller, William S. Musser, G. William Nesbit, Maurice M. Newman, Mary C. Nolan, Walter O. Nolting, Edward L. Park, Walter L. Pulley, Arnold F. Schaeftgen, Thomas H. Schopp, Roy P. Stewart, Walter O. Stoll, Charles B. Stolz, Ernst A. Strassburger, Winfred E. Tanner, James W. Wade, Robert W. Weech, Fred D. Wilson, Arthur A. Zieske and John Zwack.

The degree of pharmaceutical chemist was given to James H. Dickey.

Philadelphia College.

Exercises marking the ninetieth commencement of the Philadelphia College of Pharmacy were held in the Academy of Music Thursday evening, May 25th.

The exercises were opened with prayer by the Rev. Edward S. Carson, and the class was addressed by Willis L. Moore, chief of the United States Weather Bureau.

It was announced that George W. Hayes, of Lebanon, Pa., '82, who died some months ago, had provided for an award to the best student in the first class graduated after his death of a gold watch which Mr. Hayes had received as a prize offered by a manufacturer at the time of his graduation. The award had been made to him for the best thesis on powdered drugs. His fellow-graduate, Joseph L. Lemberger, a vice-president of the college, had been charged with carrying out Mr. Hayes' wishes, and he presented the watch to Pierce Raymond Carpenter, of Lebanon.

The title of "distinguished" was shared with Mr. Carpenter by Herman Leo Hinski, of Philadelphia; the students named as meritorious were John Albert Butler and Morris Haimowitz.

Other prizes and honors were awarded as follows: Webb Memorial, to Mr. Carpenter; chemistry, to Edwin Kramer Morris; materia medica, also post-analytical chemistry, to Herman Leo Hinski; operative pharmacy, to Thomas Bernard Tanner; pharmacognosy, to William Wilson Rose; botany, to Adolf Gustav Wepfer; theoretical pharmacy, to Mr. Carpenter; commercial training, to Edward Percy Runyan; instructor's, to S. G. W. Martz; pharmacy quiz, also to Mr. Martz; Kappa Psi Fraternity, to Mr. Carpenter; athletic, to Clyde Raymond Hitchcock.

Degrees were conferred as follows:

Doctor in pharmacy, on James N. Allison, John W. Atkins, Samuel Baradofsky, De Wilton S. Berry, Lee O. Bloes, Chester E. Bollinger, Kersey E. Bradley, Oscar O. Bradley, Franklin C. Brush, Lloyd Burr, John A. Butler, William R. Calvin, George W. Carey, Pierce R. Carpenter, Philip Cohen, Clayton E. Costenbader, William B. Crawford, Elliot V. Davis, John Henry Donnelly, David E. Edwards, James H. Ennis, Jr., Nathan M. Friedman,

Walter J. Caskell, Charles W. Greeninger, Morris Haimowitz, Clyde R. Hancock, Clifton E. Heacock, John C. Held, Jr., Robert E. Hemminger, Herman L. Hinski, David E. Johnson, Carl F. Koehler, Oscar Perry Kraemer, Walter I. Lightner, Louis Longaker, Ellsworth W. Lynn, Edgar W. Lowe, William C. McNutt, William E. Marshall, Joseph Stanislaus Martin, S. G. W. Martz, Frederick T. Melville, Martin L. Messinger, Jacob J. Miller, Jr., Noble C. Miller, Louis H. Myers, Clark Neal, George W. Patterson, Jr., Leon K. Paxson, Robert E. Phillips, Albert Rachmil, John M. Ralston, Julius J. Rapaport, Thomas P. Read, Wallace S. Rice, Samuel Rosenberg, Roswell J. Rothrock, Edwin P. Runyan, Edward H. Ryan, George I. Sammons, Paul D. Sands, Howard C. Schauerman, Frank W. Schell, Nathaniel J. Segal, George K. Shearer, George F. Shugars, Edgar C. Smith, Marshall P. Synder, Morris Stein, Raymond A. Strauss, William E. Sylvestre, Thomas B. Tanner, Leith S. Temperton, William H. Udell, Samuel P. Verstine, Llewellyn J. Watkins, John Wear, John C. Winter, James S. Wolford and Frank A. Young, all of Pennsylvania; Robert O. Beicker, of New Jersey; Norman C. Beckley, of Russia; Miss Jennie Bellitz, of Maryland; Arthur H. Carington and Alvah F. Creaves, of New York; Louis E. Christopher, of Massachusetts; David W. Eisman, of Russia; Walter J. Farrell, of New York; Claude E. Gault, of Ohio; David H. Gordon, of Georgia; Forel Hart and Clarence S. Herr, of Ohio; Lyle V. Hendricks, of Oregon; Charles P. Hildebrand, of North Carolina; Herman S. Hasfield, of Ohio; Herman L. Lemen, of Maryland; William N. Lathrop, of Connecticut; Edwin K. Morris, of Virginia; Albert W. Moore and Charles Muthig, of New York; Samuel Millrood, of New Jersey; John E. Morley, of Russia; Lewis W. Oswald, of New York; Theodore R. Penney, of Oklahoma; Albert W. Pettit, of New Jersey; Frank O. Patton, of Massachusetts; William W. Rose, of Delaware; Edson W. Rogers and Israel Ronner, of New Jersey; Frank L. Riley, of Maine; Robert E. Smith, Jr., of Florida; Stanley A. Shiles, of Delaware; Ethelbert Steelman, of Indiana; Wilbert Somers, of New Jersey; Elias Shaker, of New York; Miss Selma L. Schmidt and Paul H. Southard, of Ohio; Arno R. Sasse, of Missouri; Frank P. Vaninweger, of New York; and Adolph G. Wepfer, of Wisconsin.

Pharmaceutical chemist, on Julius L. Charleston, Frank Duvoisin, William C. Flickinger, William L. Graeff, Harrison W. Gregory, Francis X. Hedges, Daniel J. Langton and C. F. Shoemaker, of Pennsylvania; Mrs. F. H. Greaves, of North Dakota; E. S. Hartenstein, of Illinois; and R. J. Kramer, of West Virginia.

Certificates of proficiency in chemistry were given to Charles Duvoisin and J. Harry Swain, of Pennsylvania; James H. Allen, of Georgia; Edward O. Dentzler, of Connecticut; and Frank E. Haines, of New Jersey.

The pure food and drug course was completed by Peter Amsterdam, of Russia.

St. Louis College.

At the forty-fifth annual commencement exercises of the St. Louis College of Pharmacy, held April 25th, the following students were graduated:

As graduate in pharmacy: C. B. Allen, E. Carnahan, J. B. Coats, J. G. Couper, L. L. Crocker, E. A. Dean, H. A. Dinges, H. C. Dyer, E. Erdsiek, A. C. Fisher, P. S. Grenslet, J. A. Gettinger, B. H. Griesedieck, R. H. Hale, H. P. Hansell, F. A. Hoch, C. E. Jones, L. R. Knewitz, O. W. H. Koch, R. H. Krummenacher, V. H. Krummenacher, J. Lieberstein, R. M. Llewellyn, G. A. McCall, E. L. Miche, T. L. Parrish, E. F. Paul, F. J. Reininger, C. F. Reinderer, E. S. Sauls, J. W. S'Renco, A. J. Sweeney, F. E. Tate, C. F. Warts, F. G. Ward, C. Y. White, L. T. White and M. Q. Williams.

As bachelor of pharmacy: C. R. Archibald, H. L. Baepeler, H. H. Bentz, E. M. Boehm, G. Bosche, H. A. Brown, A. G. Burnette, I. H. Copeland, A. J. Gerding, A. Guthrie, Jr., B. W. Holmes, F. J. Kiessling, G. W. Meeks, T. H. Mitchell, O. C. B. Nau, F. C. Raber, H. Riska, W. A. Scholz, F. W. Sittermann, T. G. Stanton, F. A. Steiner, F. M. Trotter, M. B. Tuck, G. C. Whiteside, and O. Williams.

As pharmaceutical chemist: E. M. Schaefer.

A writer to the *British Medical Journal* says that a coroner's jury in England recently gave the following verdict: "The man died from stone in the kidney, which stone he swallowed when lying on a gravel path in a state of drunkenness."

The Pharmaceutical Society of Great Britain.

The seventieth anniversary of the British Pharmaceutical Society recently commemorated, is an interesting event in the history of pharmacy.

In its way the society is a unique institution since it is the statutory examining body without whose diploma no person in England, Scotland or Wales can sell poison by retail or use the title of "chemist and druggist"; it also administers the law relating to the sale of poisons and prosecutes hundreds of persons each year for selling poison in an irregular manner. Membership of the society is voluntary, and the number of members is over 7,000, but all pharmacists, whether members or not, are obliged to comply with the law administered by the society.

It will be interesting to trace briefly the history of this organization, which has not been uneventful, and to look back at the conditions of pharmacy in the days before the society came into being. Prior to 1841 the sale of drugs and the compounding of medicines was in the hands of a variety of traders, including doctors, apothecaries, grocers, chemists and a comparatively small body who called themselves chemists and druggists. This body had been brought into existence a century earlier as the result of a quarrel between the physicians and the apothecaries. In those days the physicians obtained their diplomas from the Bishop of London and the Dean of St. Paul's and had the exclusive right by law to practice medicine; but the apothecaries, who were originally drug sellers, encroached upon their domain and aroused the ire of the physicians. In order to retaliate, the physicians established dispensaries and advised their patients to have their prescriptions made up there rather than at the apothecaries' shops. In course of time the assistants employed at these dispensaries opened shops of their own and it was from these that the chemists and druggists, who founded the Pharmaceutical Society in 1841, were descended. At that time doctors' shops doing a regular trade were quite as numerous as chemists' shops, even more so in some localities. They were often left in charge of young medical apprentices or of doctors' boys whose mistakes were covered by the wit of the employer; in fact the Bob Sawyer type of character, in a somewhat modified form, was not at all infrequently met with. Next in frequency would come the druggists, and there was a sprinkling of really good chemists and druggists' shops, carried on personally by men who in their youth had received a decent education and had served seven years' apprenticeship.

The consumption of medicines, chiefly aperients, was very large. Colocynth and other pills, extract of senna, Epsom salt, Gregory's powder, and like medicines were taken in enormous quantities. Boluses, of which one never hears nowadays, were a common form of medicine. The bolus consisted of 30 grains or so of a pasty mass which was placed on the middle of a piece of stiff writing paper 2 or 3 inches square. The paper was then folded diagonally across the middle, forming a right angled triangle, and the free edges folded tightly together as in folding a powder. The patient was instructed to lick the mass off the paper and swallow it with a mouthful of water. It was supposed to be more prompt in its action than pills, from its softness and consequent ready solubility. As now a large amount of dispensing was done by the medical man or his assistant.

No organization existed and if things had gone on in the same hap-hazard sort of way, pharmacy would never have advanced to the extent which it has done. Chemists and druggists were brought together in order to protect themselves against the physicians and encouraged by success in opposing legislation proposed by the latter they resolved to form a permanent organization and a meeting was summoned on April 15th, 1841, at the Crown and Anchor Tavern in Fleet street, at which it was unanimously resolved to form an association to be called the Pharmaceutical Society of Great Britain in order to increase the respectability of chemists and druggists, and protect their interests. Two months later, the first meeting was held and William Allen, F. R. S., was elected president. There can be little doubt that the society's success in the first few years of its existence was due to the influence of its first president.

Allen was a druggist with a business in Plough Court in the City of London, which business, by the way, was the beginning of the large concern now known as Allen & Hanbury's; he had as a partner Luke Howard, who, in course of time, left the shop and founded a manufacturing

business which has developed into the firm of Howard & Sons, Limited. He was a great friend of Wilberforce and associated with him in his campaign against the slave traffic; Clarkson wrote most of his History of the Slave Trade in Allen's house above the shop. The first president was indeed a notable character; in addition to being a scientist of no mean repute, he was a well known politician and philanthropist, and what was of still greater importance, was in close touch with royalty. Edward, Duke of Kent, the father of Queen Victoria, owing to one cause or another, was in financial difficulties and on Allen's advice he lived abroad on a small allowance and appointed trustees, of whom Allen was one, to pay off his debts with the remainder of his income. When all the debts were settled the Duke and Duchess returned to England, and so it happened that the future Queen was born on English soil. When the Duke died Allen was one of his executors and consequently was frequently brought into touch with the young princess. William Allen was also a friend of Alexander I., Emperor of all the Russias, who accompanied him to the Quakers' Meeting House in London at which Allen was a regular attendant; he also visited the Emperor at St. Petersburg. The founders of the society could not possibly have selected a more important or influential person as their leader.

The first efforts of the newly formed society were directed to the improvement of pharmaceutical education and within a few months of its foundation a school was established and within three years a laboratory was equipped which was the equal of any of its kind in Germany or France and the only one in England. Examinations were planned and diplomas granted to successful candidates. It was not, however, until 1852 that the society obtained any protection for its members from the government and all that the act of 1852 did was to restrict the title of pharmaceutical chemist, and other titles, to those who had passed the examination. Ten years earlier, the society had already obtained a royal charter and, while this gave them a good status, it gave chemists and druggists no privileges. It was not until 1868 that any legislation was had to restrict the sale of poisons to chemists and druggists and owing to a fault in the drafting of this act the protection which it was intended to afford failed, to a very large extent, because, while it prohibited the sale of poisons by an unregistered person, it did not prohibit the sale by companies. The consequence of this flaw was that the drug business was largely exploited by companies of unqualified persons to the detriment of qualified individuals. The difficulty was remedied to some extent a few years ago, but companies are still able to practice as pharmacists provided that they employ qualified managers.

The society has had some notable presidents besides William Allen, for instance, Morson, who was one of its earlier presidents, was the first to manufacture quinine and morphine on a commercial scale; this he did at the back of his little shop in the City of London. He sold the quinine at the equivalent of \$16 an ounce, and the morphine at \$36 an ounce. Another of the early presidents was Jacob Bell, who founded the *Pharmaceutical Journal* in 1841; he carried on business as a chemist in Oxford street, but was best known as a member of parliament and an art patron; he was a close personal friend of Millais. There have been other notable presidents but these three will suffice to show that the history of the Pharmaceutical Society has not been an uninteresting one.

The Bathroom Drug Store.*

By ROY L. MCCARDELL.

"I'm not feeling so very well this evening," said Mr. Jarr. "I wonder what would make me feel better?"

"Are you really feeling bad, or are you encouraging yourself to take a short walk in the direction of the corner, to your friend Gus's place?" asked Mrs. Jarr. "If this last is the case, I can assure you that your friend Gus has nothing to sell or give you that will do you any good. You have tried it often enough without success to know it by this time."

"No ulterior motive actuates me," replied Mr. Jarr. "I don't feel very good, that's all."

"It's your stomach," said Mrs. Jarr. "You would stay out late last night; you were playing pinochle and you drank more beer than was good for you."

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Mr. Jarr only sighed and said nothing. What's the use to say anything?

"Maybe if you take a little cooling soda—a teaspoonful in half a glass of water—you'll feel better," suggested Mrs. Jarr. "You'll find some in the kitchen."

Mr. Jarr went out to look for it. He found washing soda, but not of the edible variety.

He returned and reported the fact.

"Look in the medicine closet in the bathroom," said Mrs. Jarr.

So Mr. Jarr looked and beheld an amazing collection of half-filled, sticky bottles; small packages in white and blue paper, folded, but not tied, from which all sorts of white, gray and yellow powders were sifting out. There were also wooden boxes and round milk-colored glass screw-top receptacles, holding salves, ointments and notions of all kinds. There were paper pill boxes, empty and half full; little square pink boxes with folded papers, containing powders, and marked "Take one every two hours," and many other odd-looking and queer-smelling holders of pills, potions and compounds, nameless and mysterious, such as every good wife and mother hoards up throughout the years, to the great astonishment of the male mind.

"Darn it! I can't find any soda!" shouted Mr. Jarr, as he knocked over and out on the floor a little avalanche of bottles, boxes and powders.

"My goodness! Why are you so careless?" cried Mrs. Jarr, coming in, "and I just straightened up that medicine closet last Saturday."

"What's this?" asked Mr. Jarr, opening a folded little paper packet. "Maybe this is it?"

"You put that right up; that's bismuth, I think—no, it's powdered alum." As she said this Mrs. Jarr moistened the tip of her finger and tasted the powder. "No, it isn't powdered alum," she said, "but it's something. You put it up on the top shelf, and the next time the doctor comes I'll ask him what it is."

"Maybe if I took some of this headache powder I'd feel all right," suggested Mr. Jarr. "This is one of the few things that has any mark on it saying what it is," and he opened one of the pasteboard boxes.

"Don't touch that!" said Mrs. Jarr. "That's foot powder to shake in your shoes. I remember I put it in there because Willie wanted the foot powder box because it was a pretty red color."

"What's this?" asked Mr. Jarr, holding up an extremely sticky bottle with a teaspoonful of heavy liquid in the bottom, in which reposed, for it was uncorked, some seven flies embalmed therein.

"I think that's the iron tonic we gave Willie when he had tonsillitis," said Mrs. Jarr. "No," here she smelled at the bottle, "it's syrup of squills."

"Don't you think it should be thrown out?" asked Mr. Jarr.

"Now you leave those things alone!" cried Mrs. Jarr: "Suppose the children should get sick in the night, and I hadn't a thing handy?"

"Do you think flies preserved in syrup of squills is a specific for infantile disorders?" said Mr. Jarr.

"You just come away from that medicine closet!" cried Mrs. Jarr sharply. "You've spilled the sweet spirits of nitre. No, it's the eye wash, and that reminds me—now I know what's in that paper package you wanted to take as soda if I hadn't stopped you; it's powdered borax. There it was all the time and I was going to send out and get some. It's just the thing to keep colors from running, borax and alum, if you are washing figured lawns or anything like that."

"What are these?" asked Mr. Jarr rattling a box of pills. "The box says 'External use only.' How can pills be taken externally?"

"You leave those things alone!" said Mrs. Jarr sharply. "They are three-grain quinine pills and I put them in that box for safekeeping. They were in a bottle, a hundred for twenty cents, and I needed the bottle to get paregoric in because the druggist charges you five cents for a bottle when you want ten cents worth of anything."

"What's the use keeping all this unknown dope, these odds and ends unnamed and unlabeled?" asked Mr. Jarr.

"Because any of them may come in handy when needed suddenly," replied Mrs. Jarr. "You see, if I had any cooking soda in here I wouldn't have to send out and buy some for you." And she pushed him away from the cabinet of mysteries.

News of the Pharmacy Boards.

List of Board Secretaries.

In the following list are to be found the names and addresses of the secretaries of the various boards of pharmacy of the country. When the date and place of the next meeting of a board are known they are given also.

Secretaries are requested to keep us informed as to dates and places.

ALABAMA—E. P. Galt, Selma.

ARIZONA—November 8th, at Phoenix. A. G. Hulett, Phoenix.

ARKANSAS—J. F. Dowdy, Little Rock.

CALIFORNIA—July 19th, at Los Angeles; July 26th, at San Francisco. Louis Zeh, San Francisco.

CONNECTICUT—June 6th, at Hartford. J. A. Levery, Bridgeport.

COLORADO—June 10th and 11th, at Denver. S. L. Bresler, Denver.

DELAWARE—Albert Dougherty, Wilmington.

DISTRICT OF COLUMBIA—July 13th and 14th, at Washington. S. L. Hilton, Washington.

FLORIDA—June 12th and 13th, at Tampa. D. W. Ramsaur, Palatka.

GEORGIA—C. D. Jordan, Monticello.

IDAHO—J. M. Starrh, Shoshone.

ILLINOIS—F. C. Dodds, Springfield.

INDIANA—July 11th and 12th, at Indianapolis. W. H. Ruder, Salem.

IOWA—June 6th, at Des Moines. E. J. Moore, Des Moines.

KANSAS—W. E. Sherrieff, Ellsworth.

KENTUCKY—July 11th and 12th, at Paducah. J. W. Gayle, Frankfort.

LOUISIANA—August 4th and 5th, at New Orleans. F. A. Earhart, New Orleans.

MAINE—June 14th and 15th, at Augusta. F. W. Bucknam, Skowhegan.

MARYLAND—Ephraim Bacon, Roland Park.

MASSACHUSETTS—Every Tuesday between September 1st and July 1st, at Boston. P. J. McCormick, Boston.

MICHIGAN—E. J. Rodgers, Port Huron.

MINNESOTA—July 18th, at Minneapolis. C. T. Heller, St. Paul.

MISSISSIPPI—October 3d, at Jackson. L. H. Wilkinson, Greenwood.

MISSOURI—June 12th, at Cape Girardeau. C. E. Zinn, Kansas City.

MONTANA—October 11th, at Great Falls. S. J. Coffee, of Missoula.

NEBRASKA—A. V. Pease, Fairbury.

NEVADA—November 1st, at Reno. R. L. Prouty, Tonopah.

NEW HAMPSHIRE—F. H. Wingate, Nashua.

NEW JERSEY—July 20th and 21st, at Trenton. H. A. Jordan, Bridgeton.

NEW MEXICO—A. J. Fisher, Santa Fe.

NEW YORK—June 28th and 29th, at New York, Albany and Buffalo. W. L. Bradt, Albany.

NORTH CAROLINA—July 7th, at Morehead City. F. W. Hancock, Oxford.

NORTH DAKOTA—June 20th, at Fargo. W. S. Parker, Lisbon.

OHIO—June 20th to 23d, at Columbus. F. H. Frost, Columbus.

OKLAHOMA—July 11th and 12th, at Oklahoma City. J. C. Burton, Stroud.

OREGON—June 6th and 7th, at Portland. F. C. Pozzi, Portland.

PENNSYLVANIA—June 8th and 9th, at Pittsburg and Philadelphia. L. L. Walton, Williamsport.

RHODE ISLAND—June 6th, at Providence. J. E. Brennan, Pawtucket.

SOUTH CAROLINA—July 3d and 4th, at Greenville. F. M. Smith, Charleston.

SOUTH DAKOTA—July 12th, at Lead. E. C. Bent, Dell Rapids.

TENNESSEE—July 10th and 11th, at Nashville. I. B. Clark, Nashville.

TEXAS—R. H. Walker, Gonzales.

UTAH—July 18th and 19th, at Salt Lake City. W. H. Dayton, Salt Lake.

VERMONT—D. F. Davis, Barre.

VIRGINIA—July 25th, at Richmond. T. A. Miller, Richmond.

WASHINGTON—P. Jensen, Tacoma.
 WEST VIRGINIA—A. Walker, Sutton.
 WISCONSIN—Edward Williams, Madison.
 WYOMING—C. B. Gunnell, Evanston.

California Board.

At the meeting of the California Board of Pharmacy held at Los Angeles during the week beginning April 12th, and at San Francisco, in the following week, the successful applicants for registration were as follows:

As pharmacists—W. P. Bailey, B. A. Baldwin, H. V. Becker, D. A. Boal, Henry Boettcher, H. C. Brown, A. J. Bruce, E. M. Burns, H. A. Cook, W. W. Cope-land, J. F. Cramer, W. A. Davis, J. F. Delury, L. J. Dignan, W. S. Dupont, G. T. Edwards, J. P. Ferguson, C. J. Gillen, J. A. Godwin, S. D. Grove, Carl Hamilton, G. G. Harvey, M. W. Hefton, E. A. Heller, H. H. Hertz, F. T. Hoaglund, H. E. Kenyon, W. H. Koch, W. G. Lidley, W. C. Lovelace, C. B. Marsden, L. C. Marsh, H. C. Marvin, T. L. Moore, W. L. Mowry, S. H. Oliver, L. W. Oswald, Judson Oviatt, W. G. Peasson, R. J. Pedroni, F. H. Roberts, William Rolls, Oliver Savill, W. A. Sears, Jr., J. H. Serr, C. F. W. Smith, H. A. Smith, M. D. Stauffer, F. G. Tanck, A. F. Upp, Fernand Vigue, L. E. Walker, I. E. Wallace, J. C. Walton, and F. H. Whitman.

As assistants—O. Arnstad, A. C. Brown, E. V. Callander, L. S. Chambers, G. L. Dumpert, J. J. Early, L. G. Grossi, A. R. Harriman, G. E. Hitzelberger, A. S. Knudson, A. R. Lainer, C. La Moine, L. H. Leibe, J. I. Lorton, Glenn May, P. E. Meyer, A. N. Moody, J. F. Oldham, L. A. Ramey, W. L. Reburn, V. L. Rodda, L. M. Roeg, M. M. Sobel, C. A. Woodson, and G. T. Wolfe.

The next meeting of the board will begin July 17th, at Los Angeles and will be continued there and later at San Francisco for two weeks.

Several convictions have been secured by the board in prosecutions of doctors for prescribing morphine in illegal quantities, and of druggists for refilling prescriptions for morphine and dispensing more than the prescription called for.

Delaware Board.

There were eight applicants for registration at the meeting of the Delaware Board of Pharmacy held April 19th. The following four were successful:

As a pharmacist—Mrs. J. J. Gallagher, of Wilmington.
 As assistants—Leroy Collins, T. J. Grant, and R. M. Sanders, all of Wilmington.

Illinois Board.

The Illinois Board of Pharmacy asks that publicity be given to the appended notice to prospective applicants for registration as pharmacist and local pharmacist:

The prospective applicants for examination as registered pharmacist and local pharmacist in Illinois:

Your attention is called to the fact that the forty-seventh general assembly, in an amendment to the pharmacy law, raised the fee for filing applications for examination as registered pharmacist and local registered pharmacist from \$5 to \$10.

If this law is approved by the governor, it will be effective July 1st of this year, and the fee for filing all applications for examination as registered pharmacist and local registered pharmacist after that date will be \$10.

Kentucky Board.

At the meeting of the Kentucky Board of Pharmacy held April 11th and 12th, at Louisville, fifty applicants for registration were examined, and the following thirty-three were passed:

As pharmacists—F. T. Bisig, of Louisville; William Bleiweiss, of Newport; Jas. F. Conwell, of Covington; G. J. Ellis, of Glasgow; Louis Horwitz, of Lockland, O.; H. M. Hubbard, of Lexington; E. D. Mullins, of Wingo; B. F. Rowland, of Corbin; E. W. Sperzel, of Louisville; and Marvin Wells, of Greenville.

As assistants—J. W. Demling, F. L. Eisen, Katherine E. Fernow, J. H. Honaker, L. C. Krebs, G. A. Miller, W. C. Murphy, O. L. Perkins, H. F. Pesel, Clara L. Ritsert, and J. A. Thornton, all of Louisville; G. W. Beck, of Versailles; F. A. Burg, of Chillicothe, O.; R. P. Holland, of Murray, F. S. Kincheloe, of Hardinsburg; H. F. Klein, of Newport; Orin Lee, of Middlesboro; R. A. Martin, of Dayton; Leo Nesbitt, of Frankfort; F. E. Patterson, of Vine Grove; R. S. Quinn, of Henderson; G. A. Vallandingham, of Owenton; and Frederick Vermillion, of Winchester.

A report was received from the attorney for the board that the license of C. J. Dill, of Ashland, was void because

it had been falsely obtained, the licensee having been represented at the October, 1910, examination by James Fitzgerald, a licentiate of the Ohio Board of Pharmacy. Both these persons had subsequently been prosecuted and, pleading guilty, had been fined each \$100. To lessen the chances for such deception in the future the board decided to require applicants to submit photographs and to satisfy a referee in their home county as to their identity.

The next meeting of the board will be held July 11th and 12th, at Paducah.

Louisiana Board.

As a result of the examination at the meeting of the Louisiana Board of Pharmacy held May 5th and 6th, at New Orleans, fifteen persons have been licensed; fifty candidates were examined. The successful ones are:

As pharmacists—C. C. Chapman, of Centerville, Miss.; A. R. Holloway, of Bunkie; E. C. Kinder, of Homer; J. B. Lavigne, Jr., of New Orleans; F. C. Mouton, of Lafayette; M. L. Nash, of Monroe; J. D. Navarrine, of Palmira, Cuba; J. A. Nelson and G. A. Rojas, both of New Orleans; B. G. Sanarens, of Charenton; P. M. Schertz, of New Orleans; C. Stoppers, Jr., of Baton Rouge; D. V. Stuart, of Centreville, Miss.; and C. F. Williams, of New Orleans.

As assistants—G. V. Claren, Jr., of New Orleans; A. P. Lauve, of Jeanerette; T. P. Roggio, of De Ridder; and C. J. Wichser, of New Orleans.

The next meeting of the board will be held at New Orleans, August 4th and 5th.

Maine Board.

At the meeting of the Maine Board of Pharmacy held April 12th and 13th, at Augusta, eighteen applicants for registration were examined, of whom the following six were successful:

B. E. Bither, of Augusta; C. S. Blackington, of Bath; W. M. Chase, of Bangor; J. H. Coakley, of Rockland; W. E. Murphy, of Portland; and J. M. Sullivan, of Biddeford.

The next meeting of the board will be held June 14th and 15th, at Augusta.

Maryland Board.

At the meeting of the Maryland Board of Pharmacy held April 12th and 13th, at Baltimore, the following passed the examinations:

As pharmacists—Filberto Artigiani, C. M. Branning, Frederic Garrison, Louis Gitonirsky, W. S. Harrison, J. C. Hudson, L. R. Laroque, L. T. Lombard, E. L. Mueller, C. N. W. Oertel, P. E. Plunkett, T. F. Ragland, A. W. Smith, P. P. Towers, G. H. Waltz and C. W. Wilhelm, all of Baltimore; O. L. Johnson, of Lancaster, S. C.; Dr. M. D. Ke-tauver, of Smithsburg; and J. C. Woodland, of Crisfield.

As assistants—M. J. Bransky, S. A. Craig, Alexander Cohen, C. A. Davis, Herman Dietel, Jr.; H. F. Hein, W. V. Jackson, H. W. Jones, R. T. Kelly, Jr.; E. C. Krupnick, S. M. L. Leberman, D. P. Lillick, C. O. Miller, L. A. C. Munzert, and L. M. Richardson, all of Baltimore; B. T. Durdin, of Snow Hill; T. P. Flynn, of Unionville, Conn.; J. C. Jones, of Berlin; Cordelia L. Mikules, of Mt. Ranier; P. N. Stouffer, of Hagerstown; W. S. Walb, of Philadelphia, Pa.; D. C. Ward, of Elkins, W. Va.; D. A. Warren, of Snow Hill.

Massachusetts Board.

During the month of April the Massachusetts Board of Pharmacy conducted five examinations, passing upon the fitness of eighty-seven applicants for registration. The following thirty-nine were passed:

As pharmacists—A. L. Ballard, of Boston; H. H. Bronson, of Palmer; C. H. Creelin, of Pittsfield; J. H. Crowley, of Holliston; W. J. Danforth and L. Dronsich, both of Boston; C. E. Hoffman, of Clinton; H. B. McCormick, of Cambridge; J. J. McDonell, of Holyoke; C. C. Mathews, of Colchituate; H. F. Murray, of Boston; L. P. Pond, of Chelsea; A. J. Pratt, of North Adams; G. F. Ramponi, of Boston; and Fred Toohey, of Lawrence.

As assistants—F. Beauchamp, of Boston; H. F. Brightman, of Portsmouth, N. H.; D. J. Byrne and C. A. Clark, both of Boston; M. W. Corbin, of Worcester; F. H. Dowst, of Salem; C. L. Ely, of Springfield; F. A. Flynn, of Lawrence; F. W. Gardner, of Lawrence; J. T. Gurl, of Springfield; J. W. Harvey, of Danvers; W. T. Jackson, of Boston; T. P. Keating, of New Bedford; S. M. Lapp, of Boston; F. T. Lewis, of Worcester; T. Montcalm, of Holyoke; J. F. Mulcahy, of Brookfield; J. L. O'Reilly, of Lawrence;

H. Ostrer, of Boston; G. B. Sellers, of Lawrence; P. D. Spaulding, of Boston, G. H. Sweet, of Milford; and R. B. Wilkie, of Boston.

Minnesota Board.

Out of the 122 applicants for registration who were examined by the Minnesota Board of Pharmacy at its April meeting, only thirty-four were successful. The names of the successful ones follow:

As pharmacists—B. H. Day, of St. Paul; H. B. Jensen, of Bagley; E. P. Jones, of Blue Earth; T. T. Klovstadt, of Minneapolis; O. J. Lundemo, of Duluth; T. B. McGovern, of Minneapolis; W. J. Mueller, of Deer River; N. W. Root and F. E. Turton, of Minneapolis; J. M. Sansby, of St. Paul; and E. A. Wahlstrom, of Center City.

As assistants—E. M. Adams, A. J. Austin, J. E. Bierle, C. M. Larson, Frank Murray, J. F. Pelant, and S. L. Rosenfield, all of Minneapolis; O. J. Bruning, of St. Cloud; C. C. Cowden, of Anoka; M. J. Cox, of Hibbing; Joseph Demel, of St. Paul; F. A. De Witz, of Red Wing; V. E. Lundbohm, of Warroad; C. E. McLane, of Litchfield; R. B. Meland, of Pelican Rapids; P. C. Pederson, of Hawley; A. W. Peterson, of Litchfield; C. R. Reiersen, of Spring Grove; B. V. Stickney, of Wendell; G. C. Wirth, of Duluth; and O. E. Zandell and C. J. Zwerenz, both of St. Paul.

The next meeting of the board will be held at Minneapolis, beginning July 17th.

Montana Board.

Thirty-five applicants for registration were examined at the meeting of the Montana Board of Pharmacy held April 12th to 14th, at Butte. Twenty-four of these were successful, their names follow:

As pharmacists—C. E. Beckhorn, of Helena; B. A. Benedict, of Libby; C. S. Brown, of Anaconda; G. K. Carlson, of Polson; F. M. Chastek, of Thompson; H. A. Crane, of Forsyth; Richard Engstrom, of Minneapolis, Minn.; C. E. Kenyon, of Great Falls; LeRoy Larson, of Helena; J. R. Morford, of Billings; Lester Morris, of Corvallis; L. H. Morrow, of Helena; J. M. Princell, of Glendive; W. W. Wagstaff, of Butte; F. O. Wheeler, of Great Falls; M. F. Whiteman, of Missoula; N. W. Wilson, of Philbrook; and W. E. Young, of Three Forks.

As assistants—W. P. Callow, of Great Falls; C. A. Jensen, of Butte; J. L. Moore, of Manhattan; Frank Reavley, of Great Falls; H. E. Swanson, of Missoula; and H. O. Turner, of Sydney.

This being the annual meeting an election of officers occurred, which resulted in the choice of the following: President, T. M. Kehoe, of Billings; treasurer, Emil Starz, of Helena; and secretary, S. J. Coffee, of Missoula. Mr. Starz is a new member of the board, succeeding J. L. Kraker, of Bozeman.

Mr. Coffee was a caller at the CIRCULAR office a few weeks ago, and had some interesting information to impart concerning the endeavors of the board to assure for Montana a high-grade of pharmacists. He naively remarked that, as the pay of registered drug clerks in that State and their general condition are much above the average, the board felt it to be its duty to see that those securing registration possessed more than mediocre ability. The next meeting of the board will be held October 11th, at Great Falls.

New Jersey Board.

Appended are the names of the successful applicants for registration whose fitness was determined at the meeting of the New Jersey Board of Pharmacy held at Trenton, April 20th and 21st.

As pharmacists—R. E. V. Angresius, Annibale Berardinelli, P. D. Bloom, J. J. Cassidy, Vincenzo Cataldi, J. B. Grossman, W. A. Lenrow, Max Starr, and Joseph Weisberger, all of Newark; C. C. Christensen, Alfred Diedrich, J. W. Goldberg, Elvira Kalkbrenner, M. L. Kobelin, Jennie Loeb, G. M. Perry, Samuel Saletan, M. R. Willmer, and William Wolf, all of Brooklyn, N. Y.; Jacob Cohen, Roberto Filice, Max Fried, M. J. Fried, Jacob Morgulis, Solomon Neiman, Sachar Stehukin, and Herman Vogel, all of New York, N. Y.; H. L. Debus, C. W. Dunn, Ephraim Feldman, Helen Glucksmann, W. J. Jordan, Jacob Kessler, W. H. Moessner, F. E. Schwartz, and Matthew Weber, all of Jersey City; Emil Cataldi, of Orange; H. M. Dawson, of Boston, Mass.; Jacob Goldberg, of Philadelphia, Pa.; E. M. Holmes, of Trenton; A. T. Huffman, of Millville; W.

H. Legg, and B. R. MacPhail, both of Paterson; A. W. Pettit, of Merchantville; W. L. Pratt and Israel Rovner, both of Philadelphia, Pa.; G. E. Stevens, of Somerville; and C. A. Winter, of Hoboken.

As assistants—Ignatz Goldberg, Louis Horwitz, A. V. Palumbo, Meyer Rubin, and M. J. Weiss, all of Newark; D. F. Bentley, Jr., of Camden; G. W. Dickie, of Morristown; Samuel Engelman, of Elizabeth; G. J. Evans, of Ocean Grove; C. E. Gault, of McComb, O.; J. W. Hankinson, of Maplewood; J. A. Jaffe, of Jersey City; E. J. Morris, of Trenton; E. H. Prickitt, and Leslie Southgate, both of Burlington; C. H. Stuhler, of Roselle Park; H. E. Weiss, of Gloucester City; and John Waszkiewicz, of Bloomfield.

The next meeting of the board will be held at Trenton, July 20th and 21st.

Oklahoma Board.

Of the fifty-three persons examined for registration at the meeting of the Oklahoma Board of Pharmacy held April 11th and 12th, at Oklahoma City, only the following twelve were successful:

T. B. Adams, of Oklahoma City; H. C. Alston, of Atoka; J. D. Bender, of Canadian; Margaret Dykes, of Spearville, Kan.; Harry Eshelman, of Wichita, Kan.; J. J. Estus, of Mulhall; H. J. Hammonds, of Atoka; S. L. Hubbard, of Hooker; N. J. Jenkins, of Oklahoma City; L. H. Randle, of Holdenville; J. H. Simmons, of Jenks; and N. F. Woolard, of Miami.

At the same time registration was granted to the following, without examination, by virtue of their possession of diplomas from schools of pharmacy recognized by the board.

G. C. Allen, of Enid; Mrs. M. L. Davis, of Supply; F. C. Dulgenan, of Marysville, Kan.; A. K. Folger, of Bartlesville; Verde Harrison, of Fargo; J. H. Loeffler, of Ilion, N. Y.; Frederick Tergue, of Whittier, N. C.; L. L. Topper, of Gettysburg, Pa.; and Clara C. Wood, of Jones City.

Registration was also granted to the following licensees of other boards with which the board has reciprocal relations:

M. D. Butler, of Okeene; E. J. Skidmore, of Oklahoma City; and Mary C. Weuster, of Wichita, Kan.

J. P. Mason, of Caddo, was registered on "original application."

The next meeting of the board will be held at Oklahoma City, July 11th and 12th.

Rhode Island Board.

At a meeting of the Rhode Island Board of Pharmacy held at Providence, May 2d, the following applicants for registration were successful:

A. W. Clafin, of Providence; A. M. McCaw, of Bristol; and A. J. Maille, of Providence.

The next meeting of the board will be held June 6th, at Providence.

Tennessee Board.

A meeting of the Tennessee Board of Pharmacy was held at Memphis, April 16th, at which thirty-three applicants for registration were examined. Nine were successful as follows:

F. M. Brown, of Morristown; Gertrude Bullock, of Nashville; M. L. Bullock, of Memphis; C. F. Gaylord, of Knoxville; M. L. Hurts, of Memphis; W. L. Lipscomb, of Dyersburg; E. J. Miller, of Jackson; J. N. M. Taylor, of Mason; and H. L. Waggoner, of Memphis.

W. H. Rudder, the secretary of the Indiana Board of Pharmacy was a visitor at the meeting.

W. A. McBath, of Knoxville, has been reappointed a member of the board.

The board will hold its next meeting July 10th and 11th at Nashville.

Utah Board.

At the meeting of the Utah Board of Pharmacy held April 18th and 19th, at Salt Lake City, eight of the fourteen candidates applying for registration passed the examination. The successful ones are:

D. E. Degeian, F. X. A. Eble, F. J. Folland, F. C. Hansen, and W. P. Stephenson, all of Salt Lake City; S. M. Brown, of Ogden; S. P. Lexow, Jr., of Castle Dale; and G. H. Lyon, of Murray.

The next meeting of the board will be held July 18th and 19th, at Salt Lake City.

Virginia Board.

The Virginia Board of Pharmacy held an annual meeting at Richmond, April 24th to 29th. During the session thirty-six applicants for registration as pharmacists and forty-four as assistants were examined. Of these, twenty-three and twenty-seven, respectively, were successful, these being the following:

As pharmacists—J. W. Fox, H. L. Livick, E. B. Moncure, J. W. Smith, Ward Stark, and B. L. Wright, all of Richmond; C. G. Brice, F. S. Hoback, M. J. Patzel, R. K. Rector, and L. G. Stiff, all of Roanoke; C. S. Bruce, of Culpeper; H. P. Carlin, of Alexandria; A. S. Cross, of Norfolk; C. H. DeFord, of Phoebus; J. B. Gillispie, of Lynchburg; W. H. Harrison, and F. N. Hillis, both of Norfolk; C. M. Lindley, of Emporia; L. G. Smith, of Hampton; L. C. Stratton, of Newport News; E. C. Thornton, of Warrenton; and R. H. Williams, of Petersburg.

As assistants—W. J. Adamson, Hugh Andrews, J. L. Blackburn, C. B. Board, B. F. Bowles, C. F. Dirickson, J. J. Harris, W. L. Irwin, C. W. Johnston, C. G. Patterson, E. A. Schaaf, A. B. Smellings, W. A. Smith, R. I. Stanley, and C. H. Thomasson, all of Richmond; W. G. Anderson, of Petersburg; W. W. Briggs, of Portsmouth; W. B. Furr, of Harrisonburg; M. B. Holtzclaw, of Jarrett; D. A. Lassiter, of Norfolk; Owen Morris, of Clifton Forge; H. M. Pettus, of Chase City; H. C. Reece, of Orange; P. S. Roach, of South Norfolk; J. A. Smith, of Belle Haven; G. B. Stover, of Norfolk; and H. S. Wyatt, of Hampton.

After a lengthy discussion, the board voted its approval of the National Pharmaceutical Syllabus.

The next meeting of the board will be held at Richmond, July 25th.

Wisconsin Board.

At the meeting of the Wisconsin Board of Pharmacy held April 11th and 12th, the following applicants for registration were successful:

As pharmacists—L. M. Broene, O. F. Haneisen, G. D. Howard, Oscar Rennebohm, H. E. Rubel, and H. F. Zimpelmann, all of Milwaukee; C. A. Abbott, of Ashland; W. M. Atwood, of Madison; A. B. Averbook, of Superior; W. C. Becker, of Watertown; W. R. Denu, of Madison; R. O. Fischer, of Jefferson; W. F. Gerbinsky, of Manitowoc; E. J. Gitter, of Oshkosh; E. H. Hahn, of DePere; W. S. Hammersley, of Lake Geneva; J. E. Hutchinson, of Columbus; W. O. Klenheim, of Madison; V. E. Noer, of Colfax; P. F. Pfeil, of Fond du Lac; W. R. Powals, of Ft. Atkinson; F. D. Schlitz, of Appleton; and E. J. Setz, of Lake Mills.

As assistants—A. H. Clark, James Flarity, N. T. Grasser, C. F. Bintz, Louis Moersch, and M. F. Wren, all of Milwaukee; J. A. Baker, of Randolph; A. E. Erickson, of Kenosha; W. G. Evenson, of Wareham; R. G. Germanson, of Grand Rapids; L. A. Hecker, of Watertown; Thorman Jacobson, of Escanaba, Mich.; J. J. Kazmierowski, of St. Francis; A. H. Krueger, of Watertown; W. C. Lalis, of Fond du Lac; T. J. Muehlbauer, of Sheboygan; G. A. Nelson, of Waupaca; Henry Nutzhorn, of Osseo; M. L. Olander, of Superior; R. R. Reed, of Rhinelander; E. R. Schilling, of Minocqua; Win Suits, of Medford; R. E. Wareham, of Baraboo; B. A. Weichmann, of Wausau; C. A. Winter, of Port Washington; and L. F. Winterburn, of Lone Rock.

Association of Southern Boards.

The annual meeting of the Association of Southern Boards of Pharmacy was held at Birmingham, Ala., May 18th. The association approved a plan for securing uniformity in the examinations of the boards represented. There was also some discussion of the reciprocal interchange of licensure, but no definite action was taken.

Officers were elected as follows: President, F. W. Ward, of Nashville, Tenn.; vice-presidents, C. P. Kearfoot, of Virginia; S. E. Bayne, of Georgia; R. H. Walker, of Texas; and D. W. Ramsaur, of Florida; secretary and treasurer, L. C. Lewis, of Tuskegee, Ala.; executive committee, I. B. Clark, of Tennessee; W. S. Elkin, of Georgia; and T. A. Miller, of Virginia.

This is the way the *New York Times* describes a well-known character: Dr. H. W. Wiley, who has done so much to protect the American people from poisoners—and who would have done so much more had not the well-earned enmity of those whose fraudulent profits he diminished succeeded in depriving him of a part of his power to protect the public.

Obituaries.

SAMUEL W. RICHARDSON.

Samuel William Richardson, pharmacist at the United States Marine Hospital in Chelsea, Mass., died there May 11th.

Mr. Richardson was born April 19th, 1850, at Rochester, N. Y., was educated in the public schools of that city and also spent a year at the University of Notre Dame at South Bend, Ind. He enlisted in the United States Army when a young man and served for fourteen years in the infantry and later was in the medical department. He served under General Crook, ending that service in 1881. He was in various Indian campaigns and then became a member of the public health and marine-hospital service, with which he had continued to be connected during most of the past thirty years.

Mr. Richardson was married in 1873 to Emma Cornelia Butler. He is survived by a son, William Butler Richardson.

J. FRED. KIEDAISCH.

J. Fred Kiedaisch died May 9th at his home in Keokuk, Iowa, after a lingering illness. He was 73 years of age and was probably the oldest druggist in point of service in the State, having been continuously in the drug business in Keokuk for fifty-four years.

He was born in Wurtemberg, Germany, and came to this country at the age of fourteen. After spending several years in the drug business at Portsmouth, Ohio, he located at Keokuk in 1857 and worked to the time of his death in the same store, becoming the president of Wilkinson & Company, a corporation operating a wholesale drug house and the largest retail drug store in Southeastern Iowa, and was also senior partner of J. F. Kiedaisch & Son, who conducted another large retail store at Keokuk.

Mr. Kiedaisch was vice-president of the State Central Savings Bank and held many other positions of honor and trust. He had a wide circle of acquaintances in the Middle West. He survived his wife but a few months. Six sons, J. Fred, Jr., G. Arthur, Walter C., J. Albert, Karl and Edward, and two daughters, Lydia F. and Marie M. survive.

HENRY H. STAFFORD.

Henry H. Stafford died at Newton, Mass., April 26th aged seventy-eight years. In 1850 he entered the drug business with Joseph Kldder, of Boston, going to Michigan in 1856, where he opened the business now conducted by The Stafford Drug Co., at Marquette, in 1859. He was one of the best known druggists of his day.

DR. RICHARD SAPPINGTON.

Dr. Richard Sappington, of Baltimore, the oldest physician and the oldest druggist in the actual practice of his profession in the city, died May 14th at his home in Waverly, a suburb, at the age of nearly 84 years.

Dr. Sappington was a son of Dr. John Sappington and was born in Darlington, Harford county, Maryland, in 1827. He was named after his grandfather, a surgeon in the Continental army during the revolutionary war. He attended the Darlington Academy, where he got the rudiments of a classical education, and in 1846 went to Baltimore and at once became an apprentice in a drug store, which was at that time the only way to learn the business, the Maryland College of Pharmacy not having been established. In 1848 he bought the stock and fixtures of a drug store on Pennsylvania avenue and removed them to Gay and Aisquith streets. While conducting the store there he attended lectures at the University of Maryland, School of Medicine, where he was graduated in March, 1851.

Altogether Dr. Sappington was engaged in the drug business for 64 years. In later years he had as a partner his son, Reginald Power Sappington. He was personally known to practically all of the older members of the drug trade, and they held him in the highest esteem.

JOSEPH P. URBEN.

Joseph P. Urben died at his home in Mt. Lebanon, Pa., April 30th, in his sixty-seventh year.

Mr. Urben was one of the organizers of the Western Pennsylvania Retail Druggists' Association, and also of the Pittsburgh College of Pharmacy. He retired from the business in 1905. He was married January 16th, 1868, to Mary Elizabeth Lake, of Pittsburg. Mr. Urben was prom-

inent in civic affairs, having been one of the active members of the South Hills board of trade. He was a member of St. Joseph's Catholic church.

Following are recently reported deaths of other persons in the pharmaceutical world:

MARCUS L. BLANCHARD, at Delmar, N. Y., April 20th, aged sixty-nine years.

JOHN T. BOND, at Tamaqua, Pa., May 16th, aged seventy years.

WILLIAM H. CONGER, in this city, April 20th, aged fifty-four years.

ALFRED F. FELLOWS, at Newton, N. J., May 18th, in his seventy-eighth year. He had been in business at one address for about forty-five years.

CLINTON GILSON, at Portland, Me., May 8th, aged forty-three years.

ALBERT GOODER, at Brookville, Pa., April 23d, aged forty-five years.

JAMES FRANKLIN HAYES, at Philadelphia, May 12th, aged sixty years.

REINHOLD OTTO HOEFLE at St. Louis, April 21st, aged twenty-nine years.

CHARLES G. HORNUNG, of Washington, D. C., at Blauefeldt, near Wurtemberg, Germany, in May. He was in his forty-third year.

GEORGE H. HUMMEL, at Blissville, N. Y., May 20th, aged thirty-five years. He was chief pharmacist at the hospital of the Post Graduate College, this city.

WARREN A. SPALDING, at New Haven, Conn., April 14th, aged sixty-seven years.

J. B. WEBB, at De Witt, Ia., April 12th, aged seventy-one years.

J. J. WHITTIN, at Concord, N. H., March 6th, aged forty-nine years.

LEO WIGHT, at Uniontown, Ky., April 18th, aged thirty-five years.

The body of Dr. William Gray, an aged and wealthy druggist of Washington, D. C., who disappeared March 1st, was found in the Chesapeake and Ohio canal on April 30th by some boys. It was at first thought that Dr. Gray might have been a victim of foul play, but a gold watch and other valuables intact on the body disposed of this theory. He was 75 years old and left a Washington hospital on March 1st with a large sum of money. He was rather eccentric and for some days his family gave themselves no concern as to his safety, thinking he had gone on a visit to another city.

D. J. Puffer, president of the Puffer Manufacturing Company, of Boston, Mass., died at his home at Medford, May 22d.

An Anti-Sampling Law in Ohio.

The anti-sampling bill, which was furthered by the National Association of Pharmacologists in the Ohio legislature, has passed both branches without a dissenting vote.

The bill prohibits the distribution of samples of "patent medicines" and of all other drug preparations which are dangerous to health.

Prior to the passage of this law the author, P. A. Mandabach, had collected a list of 14 deaths of children from samples in a period of about five years.

In celebrating their thirty-fourth anniversary during the week of May 22d, Stoddart Brothers, of Buffalo, N. Y., offered many bargains in every department of their large store. Ice cream and soda water were sold at half price, with strawberry shortcake free, and there were free packets of lavender flowers, talcum and other summer specialties.

So high is the temperature of Miss E—M—, a fever patient, that the bulbs of three thermometers placed beneath her tongue by physicians burst after the mercury had registered the highest figure on the graduated scale.—*Chicago Daily News*.

F. W. Heyl, of Philadelphia, has been appointed special federal examiner of drugs, medicines, and chemicals at that port.

P. C. P. Again Plays Better Ball Than N. Y. C.

Just as if to prove that luck had nothing to do with the outcome of the two preceding games the baseball team of the Philadelphia College of Pharmacy a third time trounced the ball-tossers from the College of Pharmacy of the City of New York in the ratio of 13 to 6. This game was played at Philadelphia, May 6th. Offensively the teams were quite evenly matched, but the porous gloves of the New Yorkers let the Quakers get through for many of their baker's dozen runs.

Among the spectators none were more enthusiastic than the trustees of the United States Pharmacopoeial Convention who had been in session at Philadelphia earlier in the week.

A report from the Bahama Islands has it that the world's largest sponge has been collected there. This adjunct of Neptune's bath resembles in shape an immense fruit-cake, being 6 feet in circumference and about 2 feet in diameter in every direction. When taken from the water it weighed between 80 and 90 pounds. After being dried and freed of all excrescences it weighs about 12 pounds. This immense sponge had no permanent attachment, being known as a "roller," and acquired its spherical shape by being tossed about by the waves.

"Sorry," said the constable, "but I'll have to arrest ye—you been drivin' along at the rate of fifty miles an hour." "You are wrong, my friend," said the driver. "I say I wasn't and here's a ten-dollar bill that says I wasn't." "All right," returned the constable, pocketing the money. "With eleven to one against me I ain't goin' to subject the county to th' expense of a trial."—A waif.

Obliged, because of the increasing volume of his business, to seek larger quarters, J. B. Bond, Jr., of Little Rock, Ark., has moved his wholesale establishment to 113 East Markham street, that city.

The Mexican Chemical Society is making an effort to have a federal school of chemistry and pharmacy established at Mexico City.

"Has the doctor a large practice?" "So large that when people have nothing the matter with them he tells them so."—*Pittsburg Post*.

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Prohibition of the Word "Cure" Illegal.

Called upon to construe a passage in the food and drugs act concerning the meaning of which the officials appointed to enforce the act and some of those whose businesses were affected by its provision were at variance, the supreme court of the United States has decided in favor of the manufacturers and against the officials. The point at issue was whether or not the prohibition in the law against "false and misleading statements" on the labels of medicines was intended to apply to statements concerning the therapeutic efficacy of the drug; or, in short, whether the government could prohibit the use of such words as "cure" as part of a label, as it succeeded in doing in the famous Harper "cuforhedake brane fude" case, as a result of a criminal suit, and as it has done in a number of other cases, which were not contested. With three justices dissenting, the court held that the phrase "false and misleading" was intended by congress to apply only to statements concerning the composition of foods and drugs and not to predictions as to what the effects of the drug would be.

The language of the statute is as follows:

Sec. 8. That the term "misbranded," as used herein, shall apply to all drugs or articles of food, the package or label of which shall bear any statement, design or device regarding such article, or the ingredients or substances contained therein, which shall be false or misleading in any particular, and to any food or drug product which is falsely branded as to the State, territory or country in which it is manufactured or produced.

In the regulations adopted by the secretaries of the three departments of the government to which the administration of the law was assigned we read:

The use of any false or misleading statement, design or device shall not be justified by any statement given as the opinion of an expert or other person [etc.]

In delivering the majority opinion of the court Justice Holmes said that congress would hardly attempt to make an interstate shipper criminally responsible for mistaken praise, and pointed out that the language of the act itself seemed to refer to actual ingredients of drugs rather than to their effect. If by the words "false and misleading" in the act, every possible false and misleading statement were included, then why, asked the court, did the makers of the law deem it necessary in the same paragraph to specify a prohibition as to false and misleading statements regarding the place of the manufacture of the remedy; and, again, if they had in mind a prohibition of false and misleading statements as to the therapeutic prop-

erties of a drug, why did they not provide for referring any question which might arise in this connection to physicians rather than to chemists, the latter being trained to separate and identify the ingredients of a preparation, but not to pass upon its remedial properties?

While the view of the case indicated by these questions was taken by a majority of the court, this line of reasoning did not convince Justices Hughes, Harlan and Day. A dissenting opinion was filed by Justice Hughes, and no one can read its clear-cut language, follow its cogent reasoning, and study its analysis of the history of the section of the law under consideration without being impressed by the fact that there are two sides to the case, and reflecting that our judges have extremely nice points to decide. Said the learned justice: "If congress had intended to restrict the offense to misstatement as to identity, it could easily have said so. But it did not say so," and again: "If false and misleading statements regarding such articles were put upon their labels, was it not the intention of congress to reach them? And was it not for this very purpose that the general language of section eight was used?"

Put in this way it would seem that to these questions there could be but one reply, yet by a two-thirds majority the court negatived what seems to be the obvious answer. As to their legal correctness in so doing it is not for us to pass judgment, but we believe, and our belief, we are sure, is shared by manufacturers of high-grade goods, that in deciding against the government they indirectly helped the cause of honest dealing in the drug business by showing the necessity for a strengthened food and drugs act. Until the act has been strengthened with respect to the point raised, we are in no worse position in the matter of false and misleading claims for drugs than we were before the passage of the law, and we are in a much better position in a great many other ways.

Food and Drugs Law Needs Strengthening.

According to the old story, the Irishman who laughed at the joke he was going to play on the angry bull, and then tried to rub the animal's nose on the ground, with a result which may be left to the imagination, sagely observed, when he recovered his breath, that it was well that he had had his laugh first, as otherwise he would not have had it at all.

We are reminded of this well-known and well-worn yarn by the attitude of those who are hilarious

over the recent decision of the supreme court of the United States in the Johnson "cancer-cure case". Evidently they think that they have "put one over" the officials of the department of agriculture—and they have. Let them laugh now, while they may, for the time for the aforesaid officials and the better men in the trade and the general public to laugh is coming on apace. The supreme court having decided that the food and drugs act does not confer authority upon the executive officers of the government to prevent the use of extravagant praise of the curative properties of a medicine upon its label, all who wish may now proceed to call their preparations "cures," no matter what chemists say as to their inertness, and regardless of the protestations of physicians that the diseases for which the "cures" are extolled are incurable.

In a way this seems unfortunate, yet we take the view that it is a blessing in disguise, for it is a sort of "last straw" that will cause congress to amend and strengthen in many ways the admittedly weak and inadequate law which we now have. Ever since the passage of the law prohibiting "false and misleading statements" on the labels of drugs, there has been some question in the minds of many thoughtful people as to the propriety of delegating to an official board the authority to decide, under a non-specific law, what therapeutic statement may appear on a label and what may not. Manifestly the just way is to have the law so specific on the question of labeling that questions growing out of the exercise of judgment can not rise under it; then all will know what their rights and privileges are without consulting the regulations of executive officials or waiting for decisions of the judiciary.

By settling once and for all time the question at issue between the department of agriculture and those proprietors of medicines who would make extravagant claims as to the curative properties of their wares, the supreme court has cleared the way for an amendment to the law which will do away with any ground for differences of opinion, and the amended law will undoubtedly be couched in such language that medicine manufacturers will know just where the dividing line is between what they may say and what they must refrain from saying. And no doubt, too, the amended act will be precise as to what is meant by a label: it would be well to have the law so drawn as to include in its definition of labels, the wrappers, circulars, cartons, etc., of the medicine, or better, for it to go so far as to extend the prohibition of "false and misleading statements" to all printed matter to be used for the purpose of advertising it.

President Taft himself has officially recognized the necessity for a better law, and in an emergency message to congress has called upon that body of law-makers to remove "an evil which menaces the general health of the people" and "strikes at the life of the nation." That the chief magistrate of our country should take cognizance of the fraud so long practiced with impunity by nostrum fakers, and make it the subject of a special message to congress, means more

for decency in medicine than we are able to express and perhaps even more than we are able to realize. It is a sign of the times which means that the people are becoming more enlightened and are no longer to be deceived by the cruel lies in "patent"-medicine almanacs and the crafty sophistry in "red clause" newspapers. Senator McCumber and Representative Sherley have already introduced bills in congress to amend the food and drugs act, and the chances for the passage at this session for a law embodying the president's views seem good.

How Wisconsin Regulates the Label.

As if to cheer up those who may be cast down by the decision of the United States supreme court in the Johnson case, discussed in this issue, comes some reassuring news from the good State of Wisconsin. That Commonwealth, like many or most others in the Union, has a food and drugs act of its own, which act is intended to prevent, among other things, deceptive statements on labels of foods and drugs.

In 1908 the United States department of agriculture decided that the product commonly known as glucose was not misbranded if labeled "corn syrup." The food commissioner of Wisconsin refused to be guided by the federal decision, and proceeded against several dealers for selling glucose as "corn syrup." His action was sustained in the circuit court and the action of that court was affirmed in the supreme court of the State, as was mentioned at the time, in the CIRCULAR for September, 1910, page 452. In our report of the case we printed a portion of the opinion of the highest Wisconsin tribunal, which will bear repetition. It follows:

Nor can it be said that the great mass of persons understand that "corn syrup" is a mixture of glucose and syrup. The natural result of such use of the term "corn syrup" is to mislead the consumers into the belief that they are obtaining a table-food of the variety and kind commonly known as syrup, the product of sugar-producing plants, and the consequences of such practice are that the consumers are misled and deceived in the respects as to the actual nature, the constituents and the value of the article as a food product.

The manufacturers of glucose did not accept this opinion as a final blow to the "corn syrup" business in the State in question, but at once brought pressure to bear to have the law changed. They refused to ship their product into Wisconsin, and withdrew most of their advertising from the newspapers there. Then, early in the session of the legislature this year, two bills to change the law were introduced. One of these was withdrawn, but the other came up for final reading in the house, when it was defeated by the decisive vote of sixty-eight to twenty-two.

If glucose is a good thing for people to eat, why should it not be sold under its own name? If it is not a good thing for people to eat, it is not made better by reaching them under a deceptive label. Evidently the executive and judicial branches of the government of Wisconsin take this view, and the legislative has now shown an equal regard for the rights of the people. The latter are to be congratulated upon the

firm stand against deceptive labels taken by their officials, and the examples of these men ought to strengthen the advocates of honesty everywhere. It is confidently believed that the federal law will soon be so amended as to afford fuller protection to the public. Meanwhile, as we have before pointed out, the individual States can have all the protection under their own laws that they want. At best federal law can regulate only foreign and interstate traffic and transactions in certain federal territory. The States must protect themselves against adulteration and misbranding done within their own borders.

Reform Needed in Our Pharmacy Schools.

After a dozen years of the existence of the American Conference of Pharmaceutical Faculties, and after something like half that number of years of effort on the part of the educational authorities of this and other States to separate the reputable from the other kind of colleges of pharmacy, and after there has been prescribed by many of our States a minimum amount of education which a student must have before he can enter a college of pharmacy, and by at least two States a minimum number of hours he must attend lectures and do laboratory work before he shall be entitled to his diploma and be privileged to come before the board of pharmacy for examination for license as a pharmacist, what do we see? We are treated to the humiliating spectacle made by college-of-pharmacy graduates, many of them doctors of pharmacy, and all of them with at least four years of experience in prescription pharmacies, giving most absurd or inane answers, or failing to give any answer at all, to board questions which any intelligent boy who has been working as a messenger or porter in a drug store for twelve months ought to be able to dispose of as a matter of course by putting to use his mother wit and the information he has absorbed by contact with drugs and druggists. When we consider the fact that "doctor" means a learned man—literally, one who is qualified to teach—and that to become a doctor of pharmacy one must take a three years' course at college, the question must naturally arise, What kind of standard can there be in a college which confers this degree upon a candidate who shows the lamentable ignorance revealed to board examiners by some who have received it? How long will our really learned men in pharmacy, the real doctors and leaders and teachers permit this travesty upon education? Whether or not the requirement that a young man to become a registered pharmacist must be a college graduate is a good one, we are not now considering. That is another story. But it may safely be asked how much better is a college that takes poor material, forces it through a certain course and labels it "Graduate in Pharmacy" or "Doctor of Pharmacy," than a manufacturer who mixes spoiled tomatoes, sodium benzoate, red anilin dye and a few other things and labels the product "Pure Tomato Catsup." Both turn loose upon the public a misbranded article which threatens the public's health and even life—and

just here is where boards of pharmacy do good work as public inspectors and public protectors.

Elsewhere in this issue we publish the questions asked by a board at an examination of candidates for licensure as pharmacists, and some answers. The examination is a "stiff" one we admit. We go further and say that we believe that some men who are excellent pharmacists would make a rather low percentage on many of its questions. But before anyone says that the examination questions are too hard, let him consider that they were intended only for graduates of reputable colleges of pharmacy. The point we make, however, is not that certain college graduates failed to pass this examination as a whole, but that they showed such woeful lack of ordinary intelligence in some of their answers—or lack of answers. A man need not be a pharmacist in order to frame an intelligent reply to the question, "Is there any difference in the weight of a pound of cotton and a pound of lead?" yet we see a graduate in pharmacy, and also a doctor of pharmacy, turning in blank sheets instead of answers to this question. The weight of a bushel of wheat having been given as sixty pounds, the examiners asked, "How many bushels are contained in one hundred and fifty pounds of wheat?" and the same two men, who have not only college diplomas—degrees, if you please—but four years' experience each in the practice of pharmacy, are struck dumb by the intricacies of the problem presented! If this were all, we should draw the mantle of charity and say the boys were "rattled"—were in too much of a hurry—or something like that, but this is *not* all; they showed equal inability to answer questions of other and widely varying natures.

While the examiners prepared a hard set of questions, they were very lenient in grading the papers received; sometimes even going so far as to give perfect marks (as to portions of their papers) to each of two candidates who gave irreconcilable answers to the same question; so on the whole it may be said that it appears that the candidates fared about as they deserved at the hands of the board.

To comment on the details of the examination and the answers which we have published would consume more additional space than we feel justified in giving to the subject: these details are now before our readers and each may reach his own conclusions as to conditions which they reveal and his duty in the matter of bringing about an improvement in these conditions. But we cannot let this opportunity pass without congratulating the State of Pennsylvania, and especially her pharmacists, upon having a board of pharmacy that rises so fearlessly to the occasion, and in reply to the criticism in our May issue, says: "This is what we have done; we have nothing to conceal; let the world look into it and say whether or not the fault found lies in us." We believe that much good will result from the action of President Emanuel and his fellow board members in offering for publication the details of their methods of rating candidates, and we hope other boards will follow their example to the end that a much needed reform may be wrought; and

if some of the colleges show their examination questions and the answers given by a few students who pass and a few who fail, so much the better for pharmacy.

PUBLICITY FOR PHARMACOPŒIAL WORK has not been forthcoming to any appreciable extent during the first year of the work of the committee of revision of the United States Pharmacopœial Convention, but such deductions as may be made from the first annual report of the treasurer of the present board of trustees of the convention seem to indicate that the promise of the completed Pharmacopœia in two years from the adjournment of the convention in May, 1910, may be fulfilled. Comparing some of the items of expense ten years ago with similar items for the present decade we find figures as set forth in the accompanying table:

	Year. 1900-1.	Year. 1910-11.
Revision.		
Clerical	\$929.85	\$1,847.50
Supplies	159.35	1,140.97
Experts		52.60
General	759.44	112.67
Meetings		13.89
Postage and telegrams.....		146.88
Total	\$1,848.64	\$3,314.51

Now let us apply the rule of three: If by expending \$1848.64 the first year the 1900 committee of revision completed its work in 5 years, then by expending \$3314.51 the first year, the 1910 committee should complete its work in 2 years and 8 months. The conclusion pointed to by these figures is that copies of the ninth revision of the United States Pharmacopœia should be ready for distribution in about a year-and-a-half from now—say January first, 1913.

MANY CLERKS OF TO-DAY WILL BE PROPRIETORS soon, and we can prove it. According to the most trustworthy statistics available, the annual average death rate in this country is fifteen per thousand. The number of proprietors of retail drug stores in the country is believed to be approximately forty-five thousand. Assuming that the death rate among druggists is the same as it is among the people generally (offsetting the lack of deaths from infantile diseases in their ranks by the increased proportion of deaths from senile troubles), the number of drug store proprietors who die in the United States each year is about six hundred and seventy-five. Many proprietors go out of business voluntarily or for causes beyond their control without waiting to be taken out of it by death; and when druggists die or retire from business their stores, as a rule, are not discontinued, but are conducted by successors. All this means that probably over a thousand—maybe four or five thousand—druggists in business to-day will be out of business this day one year from now. It also means that their places will be filled, in the main, by young men who are clerking to-day. In other words, basing our calculation on the very conservative estimate of one thousand druggists who will make room for others during the ensuing twelve months, to say nothing of those who will create junior partnerships in their business, out of every forty-five men clerking in drug stores this year, one will be a proprietor a year hence. We believe one out of every twenty would be nearer the truth. The question of most importance to the young men themselves is, Which one will it be? That

question can not be answered off-hand, but it is a safe guess that, other things being equal, it will not be the one who, when a disagreeable task is to be done, holds back in the hope that it will fall to the lot of one of the other clerks; or the one who, on the ground that he was not hired for that purpose, refuses to do a thing which ought to be done; or the one who, in order that he may read a paper and smoke a cigarette, makes some excuse to get out of the store during business hours; or the one who is a fast worker or efficient salesman when the eye of the proprietor is on him, but who neglects his work or waits upon his trade in a slovenly and indifferent manner when the proprietor is not looking; or the one who shirks all responsibility; or the one who wastes his money; or the one who spends his nights and time "off" in demoralizing company; or the one who does not love the business in spite of its "long hours" and many "small" features. And in case, on account of other things not being equal, one of the kind mentioned should be the one in the forty-five or the twenty to step out of the ranks of clerks to join the proprietors, the chances are that he will soon be found among those proprietors who will be forced out of business by another year or so. What we have said is not intended to be "preachy"—it is just a collection of facts, deductions and prophecies which may be worth a moment's reflection on the part of some of the young men who are striving to advance themselves.

WHAT IS "LOVE POWDER"? may yet become as burning a question as the famous "What is whisky?" The newspapers report that a Louisiana druggist has been convicted through prosecution by the board of health of that State under the food and drugs law for selling prepared chalk under the name so potent in the relief of heartache. What would the board have had the poor man dispense?

DAILY NEWSPAPERS GET RAPPED so often by the technical press—and deserve rappings so much oftener than they get them—that it is a genuine pleasure to us to reprint elsewhere in this issue a little editorial note from the *New York Globe* and to commend the *Globe* for its utterance. The subject treated is the selling of wood alcohol for whisky, and—but read the note and see.

SARCASM may be all right in a court trial or political debate, but the salesman who uses it in dealing with the public upon whom he depends for his living is a candidate for the mad house—or poor house.

Speaking of those nostrum proprietors who will profit by the decision of the supreme court that false and misleading statements on labels concerning the curative value of medicines are not barred by the food and drugs act, the *New York Times* says: "The manufacturers of these injurious nostrums consciously injure, for gain, the ignorant and enfeebled and dying. They are worse than forgers and counterfeiters. Yet, under the law, and until it shall be amended, they may resume their detestable business and go scot free."

Why do makers of inks for use in fountain pens put soda foam in it? And if the answer is, "Do they?" our reply will be, Did you ever try to fill a fountain pen?

The Waking of Funeral Row.

BY VICTOR LAURISTON.

Funeral row was the proposition Wilkins the Druggist faced when he bought the Bobney stock and took hold of the Bobney business, after young Tom Bobney had gone to the wall with a financial bang which nearly jolted the wall itself off its foundations.

And Funeral row was a forbidding prospect for anyone young and ambitious. Every business street in every city, large or small, has its bad side—the side where business is poor. Carisford's Main street was no exception; and of all the "dead" side of Main street, the deadest section was Funeral row. Carisford is full of people who think that wealth is easily gained behind the counter; and every retired farmer and broken down workman in the neighborhood who has saved a trifle cherishes the illusion that all he has to do in order to roll in wealth is to rent and stock a Main-street store. This competition has pretty well filled both sides of the street; but even this competition proved powerless to rouse to business life the dark, dull stretch of stores between the Royal Arms Hotel at the southernmost limit of the street and the city market, from time immemorial nicknamed "Funeral row."

Funeral row stared Wilkins in the face. He had bought the Bobney stock, but Bassett, the shoe-man, across the way, had bought the Bobney store. And Bassett proposed forthwith to move from his own old premises to those newly acquired, and leave the bad side of the street forever behind him.

Wilkins protested.

"I can let you have the balance of my old lease," remarked Bassett, obligingly.

"That's not so bad," returned Wilkins, brightening. "How much is the rental?"

"Seven hundred a year," rejoined Bassett, smoothly.

Wilkins gasped.

"Why, the lease you hold calls for only \$450," he exclaimed.

Bassett shrugged his shoulders and smiled benignantly.

"It's the only place vacant on the entire street," he returned, coolly—"that is, the only place outside of Funeral row."

"Would you remodel the front?" suggested Wilkins, tentatively.

Bassett shook his head.

"Not at that price," he replied. "And, if you don't take it at that price," he added, serenely, "you'll have to move down to Funeral row——"

"Then," returned Wilkins, grimly, "I'll move down to Funeral row."

He stalked out without another word. He put on a bold front; but as the prospect loomed up before him, he felt a sinking sensation. Here was he, just starting business on limited capital, shoved ruthlessly into the worst location in town. True, the rent of one of the four vacant stores in Funeral row was but \$275 a year, but—there was no casual trade on which the new druggist so much depends, and to that out-of-the-way section few even of the old, tried customers whose ranks had been so sadly decimated by Tom Bobney's mismanagement would care to come. In a day's time there wouldn't be two score people of the buying class passing the door; and at night—death itself was not so quiet as that long stretch of dark-

ened stores at night, and the sidewalk that fronted them.

Wilkins gritted his teeth, and moved. He took in three dollars and eighty-two cents the first Saturday he was in the new location. At the old Bobney stand, when he was just starting, a Saturday's trade was nearer fifty dollars. The druggist half regretted that he hadn't surrendered to Bassett's exorbitant terms.

And then his anger surged up.

"I'll show them yet," he muttered. Then, sharply, he added, "Jimmie, clear out that front window and get busy with a new display."

After a few moments he went forward to supervise the display. There was really nothing else to do. He expended a deal of care upon the designing of that display—more than he might have expended had there been any certainty that there would be passers-by to see it.

"By the way, Jimmie," he remarked, "people from both sides of the street who go over the river would find it shorter to take this side of the street?"

Jimmie nodded.

"And for people living on this side of Main street, all the way back, to the city limits, this side of the street is the shortest way to the railway depot, and to half the business places in town?"

Again the boy nodded.

Wilkins said no more on the subject. Instead, while waiting for the customers who never came, he did a little figuring. The Bassett lease would have cost him \$700 a year. The present stand was costing him \$275. Where he was he had a larger, better furnished, better lighted store, and one with a modern front. He made no allowance for that, however. The figures he jotted down represented a difference of \$425 a year in the rental. With rapidly flying pencil he chopped this total into a number of smaller sums.

"The trade should come," he muttered.

"Jimmie," he added, without glancing up, "telephone both the newspapers to send their advertising men down here right away."

"Tom Bobney used to advertise," he mused. "He used to tell the people, 'This wet weather's just the thing for coughs and colds,' and he told it to them all the year 'round. Well, we'll show the old stagers a thing or two about advertising."

"And—Jimmie," he added, aloud. "Telephone Mildreth to come right up here—I want to see him about painting some signs—and telephone the Carisford Power Company to send their electric expert. That's all, I think."

"Can't be here for an hour, anyway," commented Jimmie, when the telephoning was done.

"Which one?"

"The electrical man. The others can't be around till morning."

"Oh, all right, Jimmie. You just stay here a few minutes and wait on this great tide of eager customers while I go out for a little stroll. I won't be long."

He paced meditatively to the head of Funeral row, just opposite the market. The piano store there marked the beginning of the dead line. Wilkins sauntered in, and conversed earnestly with the proprietor for some ten minutes. Then, coming out, he passed into the seed store next door. And so on he journeyed down the line—taking mental note of the three remaining vacant stores out of the dozen. After which he called up the landlord over the telephone and had a long and earnest talk with him.

Next morning electric linemen were busily at work all along the front of the block. Over Wilkins' door hung a huge cloth sign with flaring letters, and workmen were painting the woodwork and pillars in glaring tones of red and yellow, defiant absolutely of all the rules of good taste or artistic decency.

"Watch for Carisford's Broadway," shrilled the big sign. "Lights turned on Saturday night."

Bassett, strolling that way, crossed the street and hailed the druggist, who was gazing thoughtfully up at the big sign.

"Hello," the shoe man exclaimed. "Trying to make things go, old fellow?"

"I'm making things come," retorted Wilkins, coolly.

Bassett shook his head mournfully.

"I'm afraid the job's too big for you, old boy," he commented, genially. "Trouble is, you've set up in a dead section of the street. You should have sub-let my old store. It's too late now, though," he added, hurriedly. "Thompson's opening up a restaurant there—he took it for six months."

"He's welcome," returned Wilkins, serenely. "I have the best stand in the city and the best landlord on earth."

Bassett, laughing contemptuously, went his way.

On Saturday night from end to end the long block, once so dark, glowed with a long line of incandescent lights in red and white and blue, the colors fitfully alternating every moment; while over the Wilkins store in the center of the block a huge electric sign flared forth. And, where formerly people had shrank timidly from the darkness, now venturesome wayfarers were actually promenading in the uncanny glare of the illuminations; and every now and then passers-by would drop into one of the stores—and most often into Wilkins'—to buy something, or maybe to inquire as to how he changed the colors of the lights.

And such as stayed at home, reading their evening papers by the fireside, were struck by the outstanding headline, "Carisford's Broadway," upon a full page advertisement, in which were displayed the joint announcements of the nine merchants doing business in Funeral row. Well written, interesting talks they were; and by no means unconvincing.

"Carisford's Broadway" for six months continued, day in and day out, to figure just as strikingly in the advertising pages of both the Carisford dailies; and for six months, night after night, the long line of lights and the huge sign glowed welcomingly where once was darkness, but where now the only darkness was that which told of steadily growing throngs, who, fearful no longer of the shadows that had once haunted that spot, now gladly took the natural shortcut, coming and going.

"The best stand in the city," chuckled Wilkins, long before the six months were up.

At the end of the six months he called a conference of his fellow merchants along Carisford's Broadway.

"The time limit for our experiment has run out," he remarked. "Shall we quit, or shall we renew?"

"Renew!" exclaimed the piano dealer, enthusiastically; and "Renew" echoed each of the others with equal heartiness.

"But," interjected the man from the seed store, "what about the new members?"

"Oh," exclaimed Wilkins, "you mean the man who's starting the grocery at the other end of the line. I had a talk with him to-day and he's perfectly willing to come in on the regular terms."

"I know about him," returned the seed man, "but I didn't mean him. The fellow I was talking about is leasing the store right next to yours. You ought to know him, Wilkins—his name's Thompson and he's been running a restaurant in Bassett's old stand up the street."

Wilkins smiled ever so little.

"I know him," he said, softly. "He's making a good move, too. He's locating right next door to the best stand in the city."

Inside and Outside Work for Honesty in Medicine and Pharmacy.

The pure food and drug laws, instead of resulting from co-operative effort on the part of the medical profession and the retail druggists to reform conditions, are largely due to public resentment of the deplorable conditions mentioned. This reform should have come from the medical and pharmaceutical press, not from *Collier's Weekly*, the *Ladies' Home Journal*, and other non-professional publications.—Dr. F. E. Stewart, in a paper entitled "Shall We Have a Profession of Pharmacy?" published in the *American Journal of Pharmacy* for December, 1910, page 562.

It took nearly fifty years of effort on the part of the CIRCULAR to create enough interest in the subject to make the general public pay any attention to it. Had the CIRCULAR received the support which it deserved from other pharmaceutical journals and from medical journals during the intervening time, there can be little doubt as to what the results would have been by this time. Had the pharmaceutical press, or any great proportion of it, presented a solid front in defense of principles like these it would not have been necessary to have waited until 1905 for such influential journals as *Collier's Weekly* and the *Ladies' Home Journal* to step in and popularize them. Honestly conducted journals lacked adequate means for determining just how great the wrong was. Not until nearly half a century had passed and the CIRCULAR had won recognition as the defender of the interests of the best class of pharmacists, did it dawn on the minds of their editors that the subject was one that deserved their care.—Dr. R. G. Eccles in a paper entitled "Fifty Years of Battling for Pharmaceutical Reform," published in THE DRUGGISTS CIRCULAR for January, 1907, page 15.

In other words, the CIRCULAR started the popular periodicals and the popular periodicals reached the public. Mr. Bok, editor of the *Ladies' Home Journal*; Samuel Hopkins Adams, author of "The Great American Fraud" series in *Collier's Weekly*; and a lawyer, who aided both publications, obtained much of the basic information which they used in their magnificent work, by repeated personal visits to the CIRCULAR office.

Pantopon and the Council of the A. M. A.

The council of the American Medical Association has decided that pantopon is not eligible for inclusion in the association's list of new and non-official remedies. The preparation consists of a mixture of the hydrochlorides of the various opium alkaloids, as extracted directly from the drug, with more or less purification. The council holds that this name does not effectively suggest that the preparation is a mixture of opium alkaloids, as is required by a rule which reads: "In the case of pharmaceutical preparations or mixtures the trade name must be so framed as to indicate the most potent ingredients," and further explains: "It is particularly important that actively poisonous or habit-forming drugs be not disguised under an innocently worded title." The council maintains that the name "pantopon" does not sufficiently protect the public against the habit-forming and other dangers inherent in such mixtures.

The Ethical Consideration of the Prescription.*

BY G. C. DIEKMAN, M. D.

The subject assigned to me on this evening's programme is "The Ethical Consideration of the Prescription." While there can be no question concerning what may be properly designated a prescription, the question of what constitutes a strictly "ethical" prescription is no doubt a debatable one, and I shall not attempt to draw a sharp line between a prescription and an "ethical" prescription.

In general, a prescription may be defined as follows: A prescription is a written formula for a remedy or remedies, with directions to the pharmacist for compounding, and instructions to the patient or attendant for administration.

In the treatment of the subject, I shall confine myself to the prescription as furnished by the physician to the patient, omitting mention of formulas, copied perhaps from the daily papers, and presented to the pharmacist in the form of a prescription, bearing, perhaps, even what purports to be the signature of a physician.

Some have declared a prescription to be non-ethical if written for a proprietary remedy, or if such a remedy constituted one of the components. I do not coincide with this view, believing that much broader principles should govern; without question, many of the proprietary articles, more especially chemicals, of to-day, will become the official ones of to-morrow.

Code Prescriptions.

I believe, however, that no prescription should be written the terms of which are not intelligible to every pharmacist. For example, we have instances like these:

R Rheumatic mixture..... 3 iv.
Sig: One teaspoonful every three hours.

R Migraine powders..... A. B. C. No. 1.
Six powders.
Sig: One when required.

The "A. B. C." in this case stands for acetanilide, sodium bicarbonate and caffeine.

R Migraine powders..... A. B. C. No. 2.
Six powders.
Sig: One when required.

In this case the "A" stands for acetphenetidin.

These prescriptions are only intelligible to the pharmacist by whom the doctor wishes to have them compounded. If by chance they are presented for compounding in another establishment, the pharmacist is compelled to admit his inability to furnish the required article. This always creates the impression that he is less skillful than his neighbor who, by virtue of his understanding with this particular doctor, has no difficulty in dispensing the prescription. Instances of this kind are numerous, and such a prescription, in my opinion, should not be classed among the "ethical" ones.

Deviations from the Terms of the Prescription.

In general, deviations of any kind on the part of the compounder are not permissible, excepting in rare in-

stances. When it seems necessary or desirable to deviate, the pharmacist should use every endeavor to communicate with the writer of the prescription and consult with him in relation to the matter. The use of one chemical for another, as, for instance, the use of quinine sulphate for quinine hydrobromide, or the use of alum for aluminium sulphate is never justified. There are, however, instances where a deviation is desirable or even necessary, as in the following:

R Silver nitrate..... 3 ss
Cocaine hydrochloride..... 3 i
Distilled water..... 3 ii

Mix and label "Eye Wash."

In this instance, the silver nitrate will be decomposed by the cocaine hydrochloride into insoluble silver chloride. Of course, this could be removed by filtration, and a clear mixture be dispensed; such a mixture would, however, contain little or no silver nitrate. If cocaine nitrate is employed instead of cocaine hydrochloride, no chemical change will take place. I am certain that the physician will not take offense if his attention is called to the matter in a proper manner.

Another instance:

R Oil of turpentine..... 3 iss
Glycerin 3 iii
Syrup of wild cherry..... 3 iv
Water..... enough to make 3 iii
Mix.

While this mixture can, of course, be dispensed as written, it would separate into layers. A much more accurate dosage can be obtained by adding a sufficient quantity of an emulsifying agent to emulsify, and thus obtain a mixture which will not separate into layers upon standing. Here again the physician will hardly object if such an addition be made. Many other instances might be cited where the addition of a mucilaginous agent will make a more accurate dosage possible:

A third example:

R Tincture of iodine..... 3 ss
Collodion 3 ii
Liniment of camphor..... 3 ss
Ammonia water..... enough to make 3 iii
Mix. Label "Liniment."

The ammonia water is, of course, immiscible with the collodion and liniment of camphor. Spirit of ammonia used in its place will obviate the difficulty, and I have no doubt that the writer of the prescription will sanction the change. [There still remains, outside of the ethical phase of the subject of course—the risk of injury to the compounder or the patient by the violent interaction of the iodine, ether and ammonia.—Editor THE DRUGGISTS CIRCULAR.] Even in such cases, however, I think it would be only proper that the pharmacist consult with the writer of the prescription if at all possible to reach him. If the physician can not be communicated with, and if the terms of the prescription are deviated from, the pharmacist should notify the physician that a change was made.

Price of the Prescription.

In certain neighborhoods of this city, and I presume in other localities, a prescription is taken to a number of pharmacies and priced. In other words, the prescription is purchased much like one would purchase

* Read at the recent meeting of the New York branch of the American Pharmaceutical Association with the Medical Society of the County of New York, and contributed by the author.

clothing, hats, shoes, etc. It becomes the subject of "shopping." Competition being keen, it happens that some pharmacists allow the prescription to undergo a "cheapening process," either by dispensing a lesser quantity than that called for, or by substituting a cheaper for a more expensive article, or by leaving out the article in question entirely. This condition of affairs is aggravated by some physicians who advise the patient concerning the probable cost of the prescription. When the price has been stated approximately correctly, there can, of course, be no objection to this practice. It, however, often happens that the price stated is far below the actual value of the ingredients, not considering the cost of labor and of incidentals such as containers. In one instance which came to my knowledge, the physician had stated that a prescription containing 15 grains of pilocarpine hydrochloride would cost no more than 35 cents: much less than the actual cost of the salt. After considerable "shopping," a pharmacist was found who actually furnished the article, an ointment, for 50 cents. It is needless to state that the pilocarpine was conspicuous by its absence. Much can be done by the physician to remedy this so-called "shopping."

Refilling of Prescriptions.

In this matter the pharmacist is "between the devil and the deep sea." One physician requires that the pharmacist refuse to refill any one of his prescriptions. Another physician takes the pharmacist to task for refusing to refill a prescription, even in cases where he is expressly forbidden by law to refill it. Then again the general public refuses to believe the statement that the physician objects to the refilling of his prescriptions, scenting a deeply laid plot on the part of physician and pharmacist to exact another fee for consultation. The indiscriminate refilling of prescriptions is, of course, to be condemned. Who does not know of the ergot prescription that is refilled over and over again, so often in fact that the label requires renewing repeatedly? I do not believe it is wise to refill a prescription for anyone other than the person for whom it was originally intended, if the pharmacist is aware of the fact. I am acquainted with a case which occurred among friends of mine, where a child had been suffering from a stubborn cough which refused to yield to the ordinary forms of treatment. A noted specialist of this city was finally consulted, and even then several weeks elapsed before the trouble yielded to treatment. A number of remedies were employed, the last one of which had the desired effect. This last prescription was treasured highly, and has done duty among relatives, friends, neighbors, and others, wherever a child was unfortunate enough to show signs of a cough.

Copies of Prescriptions.

With regard to the giving of copies of prescriptions no hard and fast rule can be drawn. Pharmacists in general are not adverse to furnishing copies of prescriptions in proper cases. This courtesy is often abused on part of the public. For instance, after a certain prescription has been compounded and paid for, it occurs to someone that the price charged was excessive. A copy is immediately obtained and is "priced" in other pharmacies. In these cases the "shopping" is done afterward.

The practice of giving copies which are illegible or unintelligible, a practice which is indulged in by some

pharmacists, cannot be too severely condemned. In a recent case, the following copy was furnished:

R Tincture of opium.
Wine of colchicum.
Sodium salicylate.
Peppermint water.
Mix, and give.

Quantities had been omitted and no directions for administration were given. When the copy was presented for compounding in a near-by city, the pharmacist was, of course, unable to fill it. The patient in this case obtained another prescription from the physician, who becoming incensed at such action refused to any longer patronize this particular pharmacist.

Comment upon the Prescription.

Comment by the pharmacist upon the prescription, either to the patient, or other person, medical or lay, should never be indulged in. There is, in my opinion, no instance where such is necessary or justified. The pharmacist should guard the secrets of his prescription file most carefully, allowing no one access to it, excepting, of course, employees engaged in compounding. The pharmacist should remember that he is hardly qualified to make comment or criticism, even were it wise to do this. Yet at times "fools rush in where angels fear to tread." The public will often ask questions like these: "What is this medicine good for?" or "Is this medicine good for a cold?" In these cases the answer can always be made in such a manner as to avoid absolutely even the semblance of comment or criticism.

A worse offense is permitting physicians to examine the prescription file and to look over prescriptions other than their own. For this there is absolutely no warrant. Fortunately such a condition cannot prevail in a well-conducted establishment and exists only in a few cases. I am certain that the great majority of my pharmaceutical brethren will agree with me on this point.

Age of the Patient.

In my opinion, it is desirable, and in some instances even necessary to indicate the age of the patient upon the prescription. This may be done by simply stating whether for an adult or a child. I will endeavor to show the necessity for this by the following illustration:

R Deodorized tincture of opium..... ʒ iii
Syrup of wild cherry..... ʒ ss
Syrup of senega..... ʒ i
Syrup of tolu..... ʒ ss
Water..... enough to make ʒ ii

Mix; label: ʒ i every four hours.

The dose of deodorized tincture of opium in this mixture is $11\frac{1}{4}$ minims, a proper dose for an adult, but a very large dose for a child. The pharmacist to whom the prescription was presented for compounding happened to be in a position to know that the patient was a child about five years of age. Upon communicating with the physician who wrote the prescription he was informed that *camphorated* tincture of opium was what the physician wanted. Had the pharmacist not known that the patient was a child, serious results certainly would have resulted from the administration of the mixture as originally written for. If the physician had indicated that the prescription was for a child, there would have been no question about the matter. Thus it would not have been

a matter of chance or of good fortune that the error was rectified in time to prevent a serious outcome.

There is much more that could be said on the subject assigned to me. I have endeavored to confine myself to what seemed to me to be the more important of its features.

The Hot Plate: A Handy Drug Store Apparatus.*

By DR. JOSEPH L. MAYER.

It is remarkable that in connection with all the exhibitions and demonstrations of handy drug-store apparatus, mention is never made of the hot plate.

The hot plate is simply a flat sheet of iron which is supported either by a metal tripod, or, if purchased, the best form is that with removable legs.

To avoid rusting of glassware, it is well to place a sheet of very thin asbestos paper on top of the iron. Of course, the heat is an ordinary bunsen burner or any other convenient means.

Among other advantages are the fact that by moving the material being heated, either nearer or further away from that portion of the plate where the flame is, varying temperatures are obtained.

In determining sugar volumetrically, using potassium ferrocyanide in the solution as an indicator, the process is easily carried out by placing the beaker containing the Fehling's solution, etc., on the hot plate, and heating until the liquid boils; and after each addition of sugar solution putting the beaker back on the plate at a point which is just beyond the zone where the solution boils. In this manner very accurate results are obtained.

The hot plate is an invaluable aid in drying glassware.

An attempt to call your attention to the innumerable uses for the hot plate would consume too much time. Suffice it to say that its use presents so many advantages over the method of using a wire gauze, that the wonder is how so many pharmacists do without it.

A New Adulterant of Olive Oil.

Cutolo (*Boll. Soc. Nat. Napoli*) reports that olive oil is adulterated with mineral oil colored yellow by the addition of methylazodimethyl anilin. by the appearance and the taste of the oil this adulteration can hardly be detected; the saponification number, however, is very low and the refractive index is high. An addition of an alkali produces in an oil thus sophisticated a yellow color, an addition of a mineral acid a red color. The author has also examined olive oils which had been adulterated with paraffin oils which were not colored.

Cleansing Platinum Wire Used in Flame Tests.

De Koninck (*Bull. Soc. Belg. Chim. through Sch. Mines Quart.*) notes that when platinum wire is used in flame tests many substances adhere to it tenaciously. When this occurs he recommends that borax be fused on the wire, the bead run along it, then shaken off, and the remainder of the borax volatilized by long heating.

* Read at the 1911 meeting of the New York State Pharmaceutical Association and contributed by the author.

Little Sins at the Prescription Counter.*

By DR. CURT P. WIMMER.

A few months ago a certain newspaper in the city of New York had a large number of prescriptions compounded and analyzed, and 50 per cent. of them were claimed to have been found deficient. This was done for sensational purposes, no doubt. The sensation caused at the time met with the usual fate of being forgotten, if not forgiven—like the straw-fire which suddenly and unexpectedly blazes forth, surprising and startling the onlooker, and then dying out as quickly as it started, and the average mind turns to other subjects and forgets. But to him who goes to the bottom of things, there is a lesson hidden even in a straw fire. It could not blaze were there no straw. Let us then for a few minutes consider what that straw was that furnished food for the newspaper's pharmaco-pyrotechnical display.

We will not say anything at all about the very few cases in which an intentional substitution or gross alteration of the prescription was claimed to have been found (a number so small that the entire so-called "exposure" was, to my mind, a compliment to the pharmaceutical profession rather than a slap), but let us consider causes for some of the smaller deficiencies found in prescriptions.

We might say, in short, that many of the smaller deficiencies are simply due to small negligences which, with persistence and watchfulness, can be overcome and eradicated.

Let us take a simple prescription as an example:

Potassium iodide.....	2.00
Water	50.00
M. ft. sol. Sig: As directed.	

This prescription, upon analysis, should show 3.8 per cent. of potassium iodide, yet, I dare say, that about 50 per cent. of any number of this prescription compounded in different stores would be found deficient in quantities ranging from 3 to 10 per cent. The cause of the deviation lies simply in the fact that not sufficient attention is paid to details in compounding prescriptions. Do we not often forget to counterbalance the powder paper on which the potassium iodide is weighed out? A powder paper weighs about 0.040 grammes, which represents in our case 1.33 per cent. of the weight of the iodide. Do we not laboriously convert the 2 grammes into grains, because we have no metric weights on hand? We use, of course, 15 grains as equivalent to 1 gramme and forget that we should use 15.5 grains, or, better still, 15.432, which deviation represents in the above case no less than 3.22 per cent. of the weight of the salt. But why not have metric weights on hand, and use them? A good set of them can be procured so cheaply!

Do we not put the salt into the 2-ounce bottle and then add water until the level of the liquid is about 2 drams from the top of the bottle? And it never occurs to us that a 2-ounce bottle is not at all a measuring vessel, and holds, in most cases, considerably more than the specified amount. Let it be said right here, that the practice of filling prescription bottles to the top without measuring the liquid in a graduate

* Read at the 1911 meeting of the New York State Pharmaceutical Association. In a few instances our mathematical results are not exactly the same as the author's, the difference not being great enough to affect the general conclusion.—Editor THE DRUGGISTS CIRCULAR.

is a most reprehensible one. One-ounce bottles usually hold about 9 drams; 2-ounce bottles hold about 18 drams; therefore, filling a 2-ounce bottle to the top and calling this a 2-ounce mixture is a guess, and means dispensing about 11 per cent. more volume than prescribed. An accurate measuring vessel is the only apparatus which tells us the exact volume of a liquid: let us use it and get away from guessing.

Again, too many of us consider the cash register a more important piece of apparatus in the store than the balance. How often do we test the balance to see whether it weighs correctly? What care do we bestow upon the weights, those pieces of metal upon which our reputation so often depends? The balance should be examined at least once, the weights twice a year, unless they are properly kept and handled with care and due respect to their importance. I am sure that the various colleges of pharmacy would gladly test weights and scales, if requested to do so.

Other little points could be mentioned. Suppose we have a prescription for 1 ounce of a 2-per cent. solution of silver nitrate. Many of us will simply weigh off 10 grains of silver nitrate and add to it 1 ounce of water, not realizing that in doing so we dispense 9 per cent. more silver nitrate than required. We do not stop to calculate the exact amount of the salt, which in this case is 9.11 grains, nor do we weigh the final amount of solution which should be exactly 455.7 grains. The solution prepared without these precautions will, upon analysis, show 2.14 per cent. of silver nitrate, or 7 per cent. more than prescribed by the physician.

A good deal could be added about the preparation of ointments, the subdivision of powder mixtures, the losses in filtration, etc., but this will be reserved for another occasion.

The object of this paper is not to criticize or condemn. It is simply to call attention to some of our little sins which we can avoid with patience and attention. No law can punish us for them, nor should it be able to do so, for many small deficiencies found by the analysis of a prescription are entirely beyond our control. However, our own moral sense should warn us constantly that the most painstaking accuracy in our work is the only factor which elevates pharmacy to the rank of a profession. The claim that the physiological action of a prescription is not changed by such slight deviation is, while it may be true in most cases, not well founded, for it is not the pharmacist's office to be a judge of the action of a prescription. A physician who writes for a 2-per cent. solution of any salt is entitled to have it so, not 2.20 per cent or 1.80 per cent. strong, and the conscientious pharmacist will use all possible means to prepare it of just the right strength. Unless this is done, newspaper crusades against the pharmacists may become as interesting a sport as "Sunday saloon closing" or "vice" crusades, which, indeed, would be a deplorable state of affairs.

Contact Poisoning by Radium.

Dr. Boetau, a French physicist, died in May from corrosive radium poisoning. During some experimentation with radium his hand had been burned by the substance. The corrosion spread despite several surgical attempts to check it, an extensive area of tissue became involved and death followed several months after the original accident.

Can This Be Even Half True?*

It will be noted with keen interest, we think, that a woman on trial here this week on the charge of practicing medicine illegally said while testifying in her own defense that when she delivered a lecture in a church she increased the likelihood of having a numerous audience by paying the priest or minister in charge of it 10 cents for every hearer present.

The lectures in question, while nominally on the general subjects of health and hygiene, were really devoted to the exploitation of medicaments in the manufacture of which the lecturer is interested, and it is hard to believe that many clergymen could be thus moved to countenance and assist an enterprise medically so heterodox.

When the witness was asked to name those whom she had hired in this way to "drum up" listeners to such advice as she had to give, her lawyer promptly intervened to save her from the necessity to reply, and, as the court sustained his objection to the inquiry, the public's eager curiosity will go unsatisfied.

That seems a pity, for the thing charged either is or isn't done, and the matter is one of sufficient importance to make its clearing up desirable.

Pix Cresol.

Puckner and Hilpert (*Journ. Am. Med. Asso.*) report an examination in the laboratory of the association of a preparation advertised as a germicide under the name of pix cresol. Inquiries had been made regarding its composition. No mention could be found in works of reference of a chemical formula assigned it in advertisements. Two analyses were made, and in each case it was found that pix cresol was a mixture of oxyquinoline sulphate, potassium sulphate and milk sugar. The proportion of the first was approximately 21 per cent. An analysis made independently disclosed the presence of oxyquinoline sulphate and milk sugar, but not of potassium sulphate. These results indicated that pix cresol contains, as its essential ingredient, the substance known under the proprietary name of chinisol. Old specimens of chinisol contained oxyquinoline sulphate and potassium sulphate, while the newer samples of this preparation consist of oxyquinoline sulphate alone. It appears, therefore, that pix cresol is merely chinisol mixed with a large amount of inert substance, namely, milk sugar. In an appended editorial note attention is called to findings of the association's council that chinisol is a "powerful antiseptic" but a "feeble germicide."

Chemistry of Centaury.

Reis (*Apoth. Zeit.*) has found that centaury (*erythraea centaurium*) contains in addition to erythrocentaurin and a bitter principle, called by him erythramarin, a lactone-like substance erytauron, which possesses the empirical formula $C_{10}H_{10}O_4$ and melts at 225–275°. From the waxy constituents of the plant a phytosterol $C_{26}H_{34}O$, melting at 79° could be isolated, while the existence of the glucoside, erytaurin, reported by several investigators, could not be proven. Erythrocentaurin was found to possess the formula $C_{10}H_{10}O_3$; it crystallized from absolute alcohol in colorless prismatic crystals, which melted at 145° and turned red when exposed to the light.

* From the *New York Times* of June 2d, 1911.

Abstracts

An Unusual Powder Smoke Fatality.

Johnson (*Colorado Medicine*) reports an unusual and fatal accident from inhalation of smoke after a blasting operation. Men at work in a tunnel had retired to a safe distance before a blast was set off as they had done several times daily for many weeks, to allow the smoke to clear away. In less than three days nine of a party of thirteen men who inhaled the smoke died of acute pulmonary trouble. A like disaster had never been heard of by engineers in charge of the work. There were many old miners among the men who were working in the tunnel, and none of them had ever known of a similar occurrence. An analysis of the circumstances by Gilbert and Whitman seems to show that the cause of the deaths was the inhalation of nitrous fumes, particularly of nitrogen tetroxide, N_2O_4 , and that these poisonous fumes were formed by the action of the electric power current on the smoke from the burning powder. Although no record can be found of the formation of N_2O_4 in this manner, sufficient has been written on the subject to show the entire reasonableness of this explanation. When nitric acid is exposed to the air or is brought into contact with organic matter or metals it is partly volatilized and partly decomposed, and the oxides of nitrogen are formed, particularly nitrogen tetroxide. The simpler and less poisonous form of this gas is NO_2 . It will be shown that NO_2 was present in the smoke. Only the action of the electric current could then be necessary to convert it into its allotropic or nascent form N_2O_2 . The author calls attention to the possibility that some of the rapidly fatal cases of pneumonia to which miners are subject may be due to nitrogen tetroxide.

Artificially Bleached Flour.

The bleaching of flour with the various oxy-compounds of nitrogen is rather common at the present time. Buchwald and Trembl (*Ann. pharm. through Ann. d. Falsif.*) have used with success Griess-Ilosway's reagent for the detection of such bleaching. The reagent consists of a solution of 0.5 gramme of sulphanilic acid and 0.1 gramme of naphthylamine in 300 c.c. (mils) of 30 per cent. acetic acid, and is applied in the following way: A small quantity of the flour is transferred to a piece of white paper and moistened with three drops of the reagent. A pink or red color produced within one minute indicates that the flour has been bleached by nitrous acid or similar compounds. Unbleached flour gives at times a pink coloration also, but only after having been in contact with the reagent for at least four minutes.

Estimation of Spirit of Camphor.

The Dutch Pharmacopœia requires that when 10 c.c. (mils) of spirit of camphor are shaken with water not less than 4 c.c. (mils) and not more than 4.5 c.c. (mils) of the latter should be necessary to produce a permanent turbidity. Scheringa (*Pharm. Weekbl.*) reports that the temperature at which this test is carried out is of great importance, he having found that the amount of water necessary for producing turbidity increases with the rise of temperature.

Curious Accident with a Catheter.

Wilson (*Boston Med. and Surg. Journ.*) reports a curious accident with a catheter. A young man suffering from typhoid fever had so much difficulty in passing urine that his physician was obliged to introduce a catheter and had to repeat the operation several times. The last time he emptied the basin before withdrawing the instrument, which was of a soft rubber type. On returning to withdraw it he was astounded to find that it had disappeared. He made several attempts to grasp it, but all were ineffectual. The author was called with the idea of immediate removal. He concluded after satisfying himself that the catheter was wholly in the bladder, that, being probably sterile and the patient ill, not much harm would follow leaving it there and that the traumatism attendant upon removal might be the turning point in the critical stage of the dangerous disease. He therefore recommended washing out the bladder daily with sterile water. On the seventh day after the accident, after the physician had washed out the bladder, that organ being partially filled, the patient had a desire to strain and out came the catheter, eye-end first. There was no cystitis nor any other untoward result. The patient made a complete recovery from the typhoid. This accident naturally points out that firm hold should be retained on the catheter as long as it is in use, and also that it would be well if they were provided in making with a collar large enough to preclude passage beyond a certain point.

Hydrogen Dioxide Ointment.

On account of its strong oxidizing action on organic substances solution of hydrogen dioxide, when incorporated into an ointment base very rapidly loses its therapeutic value. According to Sylla (*Deutsch. med. Woch.*) an ointment giving off hydrogen dioxide can be prepared by incorporating pergenol (sodium perborate and sodium bitartrate) with petrolatum. This ointment is very stable. In preparing it 10 to 20 per cent. of pergenol should be used, and water, naturally, omitted.

Potassium Permanganate as a Hemostatic.

Buckle (*Journ. Am. Med. Asso.*) reports a case in which hemorrhage from a surgical wound which had persisted after treatment with the customarily-used styptics was stopped by the application of powdered potassium permanganate. The author had used it on several occasions before on small cuts with good results.

Unguentum Solubile.

As an antiseptic, easily absorbent, non-irritant and water-soluble ointment base Stephan (*Apoth. Zeit.*) recommends a mixture which he has called unguentum solubile. This ointment base is prepared by triturating 3 grammes of tragacanth with 5 grammes of alcohol and adding to the mixture 50 grammes of glycerin and 42 grammes of water. The ointment can easily be washed off. In cases where highly diluted solutions have to be incorporated into the ointment, unguentum solubile anhydricum should be used, which is prepared from tragacanth, alcohol and glycerin only. This base should be prepared only for immediate use.

Liquid Petrolatum as a Mounting Medium in Microscopy.

Coles (*Lancet*) having found that many of his microscopic preparations when stained with anilin dyes and mounted in the ordinary way in Canada balsam, faded or lost some of their color after a variable time, endeavored to find the cause, and, if possible, a remedy. The greatest cause of fading in balsam-mounted preparations is acidity, whether present at the time, or developing subsequently from oxidation of the mounting medium. Canada balsam, it appears, cannot be obtained neutral, in the strict sense of the word, since it contains many resinous acids, and in any case practically all substances of the nature of balsams, oleo-resins, or cedar oil will sooner or later oxidize and become acid, and therefore are liable to cause fading of anilin stains. Liquid petrolatum was suggested as a suitable medium, being considered absolutely neutral and one not liable to change. The following method was finally adopted: A small drop of the liquid is placed on a perfectly clean cover-glass, which has been held over the flame of a spirit lamp to drive off any moisture on the glass, and this is applied to the air-dried film, which is also held for a second considerably above the flame, just long enough to make the moisture disappear. After placing on the slide, the margin of the cover-glass is ringed with Apathy's gum syrup, made as follows: Picked gum arabic, cane sugar, ordinary, not candied, distilled water of each 50 grammes. Dissolve over a water-bath and add 0.05 gramme of thymol. This is tested with litmus paper, and if acid made neutral with sodium carbonate. The gum syrup sets quickly in a warm room and when dry, a coat of Bell's cement is applied. The author gives reasons for considering liquid petrolatum superior to cedar oil or balsam in optical respects.

Detection of Indican in Urine.

Barbeiro (*Policlínico* through *Journ. Am. Med. Asso.*) recommends a 1 in 2000 solution of sodium nitrite as a reagent in testing urine for the presence of indican. Two or 3 drops are to be mixed with 5 c.c. (mils) of filtered urine and well shaken. Then 5 c.c. (mils) of concentrated hydrochloric acid and 2 c.c. (mils) of chloroform are to be added. The tint changes from clear yellow to violet; the chloroform, colorless at first, changes to blue, while the supernatant fluid is dark-yellow, pinkish or violet. Comparison of the findings with this technic and with Obermayer's shows that the chloroform takes up the indigo blue more rapidly and intensely with the former. The rapidity of the technic avoids the formation of indirubin and thus protects against another source of error, but its chief advantage is that the reagent, the sodium nitrite solution, is so easily prepared, so stable and acts so promptly, thus adapting it for every-day routine practice.

Precipitation of Aluminum Hydroxide.

Taylor (*Chem. News*) says that if instead of boiling a solution containing aluminum before adding ammonia to precipitate the hydroxide, the precipitant is added at 66° C. subsequently boiling, the aluminum compound separates in a granular form. This change renders filtration very easy.

Determination of Free Carbonic Acid in Water.

Tillmans and Heublein (*Zeit. Unters. Nahr. u. Genussm.* through *Pharm. Journ.*) finds that accurate results in determination of free carbonic acid in water are obtained by titration of the carbonic acid with lime water or other alkalies, using phenolphthalein as indicator, if special precautions are taken to prevent loss of carbon dioxide. The sulphates, chlorides, nitrates, and bicarbonates of the alkalies and alkaline earths are neutral toward this indicator. The nitrates, chlorides, and sulphates are neutral to rosolic acid, but the bicarbonates react strongly alkaline with this indicator. One milligramme of bicarbonate-carbonic acid neutralizes the acid reaction of 0.25 milligramme of free carbonic acid. Large quantities of free carbonic acid may, therefore, escape detection by Pettenkofer's rosolic acid test, if considerable quantities of bicarbonate are present. Titration of the free carbonic acid with alkali or borax solutions, using rosolic acid as indicator, gives results which are too low, the error increasing as the quantity of bicarbonate present increases.

An Oil Resembling that of Anise.

Heckel (*Compt. rend.* through *Journ. Soc. Chem. Ind.*) reports that a large quantity of the leaves, fruits and fruit-stalks of a plant, probably identical with the *pelea madagascariensis* of Baillon has been recently imported into France from Madagascar and now placed for the first time on the European market. The parts named above have a strong odor of anise and contain 4 to 5 per cent. of yellowish essential oil. The oil is most abundant in the fruit, which somewhat resembles that of *ruta*, but is much larger and uniformly tetrameric. The density of the oil is 0.953 at 15° C., its optical rotatory power is + 32° 22' and its refractive index at 20° C. is 1.51469. It is soluble in four times its volume of 80 per cent. alcohol. No anethol separates on cooling the oil to -18° C., but the behavior towards sodium bisulphite indicates a large content of aldehydes, probably anisic aldehydes.

Salvarsan and "Arsenic Cancer."

Sir Jonathan Hutchinson (*Brit. Med. Journ.*) cites literature and cases indicating that the administration of arsenic creates a proclivity towards malignant forms of growth, which he describes as "arsenic cancer." He utters a warning to those inclined to prescribe salvarsan without due recognition of its possible danger.

Superheated Air in Skin Diseases.

Esau (*Münch. med. Woch.* through *Journ. Am. Med. Asso.*) urges the more general application of superheated air in treatment of dermatoses, declaring that it should at least be given a fair trial before starting a tedious, complicated course of treatment. Stopping the itching is its most grateful effect while in treatment of weeping and scaling skin affections, he says that it is at least as effectual as other measures at our command. One specially interesting feature of the treatment is that when one patch is exposed, other patches seem to feel the benefit, too, and display an evident, though milder, reaction.

Poisoning by Eucalyptus Oil.

Foggie (*Brit. Med. Journ.*) reports a case of serious poisoning by eucalyptus oil. The case was that of a boy, six years of age, who had been accustomed to have a drop or two of the oil on sugar, but was given a teaspoonful by mistake. About four hours afterwards abdominal pain and severe vomiting set in, accompanied by diarrhea. Later the boy became semi-comatose, and could only be roused by very vigorous slapping of the face, and on being roused the vomiting again set in. After two or three hours of external stimulation very much along the lines usually adopted for opium poisoning the comatose condition passed off, and the boy was allowed to sleep. The next morning, beyond being tired, he was quite himself again, although the breath had a smell of oil of eucalyptus for three days. The poison showed itself by gastro-intestinal irritation and cerebral paresis, but there was no irritation of the urinary tract. The author gives a summary of other cases of poisoning by eucalyptus oil which have been recorded from time to time. In these the symptoms have varied greatly according to the amount of oil taken, and apparently also according to the idiosyncrasies of the patient. Incidentally it is mentioned that Davies knew a patient who fainted even at the smell of it. In general, toxic symptoms have been noted after doses of 1 dram or more, but Taylor speaks of a patient who felt a little giddiness and confusion after $\frac{1}{2}$ dram. Most of the cases, however, developed marked toxic symptoms after doses of 1 dram or more. With such different dosage the time of onset of toxic symptoms has naturally varied greatly—from ten minutes in one case to one or two hours in another. In like manner the kind of symptoms and the order of their development have shown differences. Vomiting was generally the first sign, and it was frequently followed by abdominal pain and diarrhea. In most of the cases, whether preceded by gastrointestinal irritation or not, unconsciousness, varying in degree from mere drowsiness to coma, supervened. In some the first symptom noticed was a giddiness. In all but the slightest cases further effects manifested themselves in pallor, quick pulse, and general collapse, as well as frequently respiratory disturbance. No after effects were noted beyond the temporary odor of the breath.

Detection of Subnitrate in Bismuth Salicylate.

Caron and Raquet (*Rép. pharm. through Pharm. Journ.*) propose the following method for detecting subnitrate in bismuth salicylate. The latter nearly always, it is said, contains some of the former. A half gramme of the sample is treated with about 50 c.c. (mils) of a dilute solution of soda, boiled for five to ten minutes, made up to 100 c.c. (mils) and filtered. A known volume of the filtrate (5, 10, 50 c.c. [mils]) according to the supposed content of nitric acid) is evaporated on the water-bath; the residue, which contains a certain quantity of sodium salicylate besides any nitrate, is mixed intimately with 1 c.c. (mil) of pure sulphuric acid, and then 10 c.c. (mils) of water and 10 c.c. (mils) of ammonia are added. The color obtained is compared with that produced by the residue of evaporation of a nitrate solution of known strength treated with 1 c.c. (mil) of a 1 per cent. solution of sodium salicylate, under the same conditions.

Fused Silica Ware.

Bottomley (*Proc. Seventh Int. Cong. Appl. Chem., 1909, through Journ. Soc. Chem. Ind.*) stated that the limits of temperature at which a furnace for the production of fused silica ware can be worked, are very narrow, as the temperature at which the carbon used as resistance material reacts with silica to form carborundum is very close to the temperature required for working the silica. The high viscosity of the silica even at very high temperatures renders it very difficult to get rid of air-bubbles and obtain a transparent product. At the present time charges of 70 lb. of fused silica can be made and the plastic mass is so ductile that it can be drawn to a length of 60 feet or more of $\frac{3}{4}$ in. tubing. Fused silica ware which has been subjected for long periods to a very high temperature tends to become brittle owing to reversion of the silica from the vitreous to the crystalline state. An investigation of this change at the National Physical Laboratory showed that it became evident at about 1188° C., but was not serious even after heating for 8 hours at that temperature. Heating for 4 hours at 1353° C., however, caused a reduction of 40 to 60 per cent. in the strength. Transparent silica proved stronger than the non-transparent material at all temperatures. For short periods, for example, in pyrometric measurements, fused silica ware can be used at temperatures much above 1200° C. Fused silica is a better insulator than glass, especially at high temperatures; its specific inductive capacity is 3.5 to 3.6. The non-transparent material has the specific gravity 2.07, and the transparent, 2.22. The largest article yet made of fused silica is a cylindrical vessel, 2 ft. 6 in. high and 12 in. diameter, with a capacity of 50 liters. A silica tube which has been quenched from 1000° C. for a number of times, gradually becomes porous, so that a vacuum cannot be maintained in it. Silica tubes can be bent and worked at temperatures very little above 1500° C.

Preservation of Diaminophenol Photographic Developers.

Namias (*Proc. Seventh Int. Cong. Appl. Chem.*) says that boric acid acts well as a preservative agent for diaminophenol developing solutions. When 50 grammes per liter are present, the solution can be used after several months, and its reducing power is not impaired to the same extent as it would be by the use of bisulphites. The time necessary for development is only slightly greater than when boric acid is absent, and the quality of the images is unaffected. If potassium bromide is added to the solution, the rate of development greatly decreases, and the contrasts increase, so this is a convenient method for developing over-exposed images.

Precipitate in Fluidextract of Cinchona.

Javillier and Guérithault (*Bull. scienc. pharm.*) have examined the precipitate which is very frequently formed in fluidextract of cinchona after prolonged standing and have found that it consists entirely of calcium quinate. No alkaloids are precipitated from the fluidextract. The authors also report on Yvon's silico-tungstic acid method for the estimation of the total alkaloids in fluidextract of cinchona with which they have obtained very satisfactory results.

The Modern Materia Medica.

Adralgin chirurgicum is a liquid said to contain cocaine thymolsulphonate and adrenalin; *adrenalin dentale* is said to be of the same constitution, the proportion of the active ingredients differing.

Agarophen are tablets containing agar-agar and phenolphthalein.

Antiverminzaepfchen (suppositories) contain naphthalin.

Bardet's Serum is said to contain sodium chloride, phenol, sodium phosphate, and sodium sulphate.

Biofaex-Pillen is another name for *furunkulose-blutgeschwuer* pills.

Calcium Bromo-carbamide is offered as a remedy in heart complaints.

Cantani's Serum is an aqueous solution of sodium chloride and sodium carbonate.

Cebeda Powder is said to consist of powdered Roman chamomile. *Cebeda drops* is an alcoholic distillate said to contain the volatile constituents of cinnamon, cloves, juniper berries, rosemary and Roman chamomile.

Cheron's No. 1 Serum is a solution said to contain sodium chloride, sodium sulphate, sodium phosphate, and phenol. In No. 2 the phenol is omitted.

Choanol, offered for the treatment of rhinitis, contains as chief ingredient, cedar-wood oil.

Crocq's Serum is a solution of sodium phosphate.

Cusylol is a combination of copper citrate and sodium borocitrate.

Digitalis Blomberg is the name for a digitalis preparation, made by infusion from two-year-old plants.

Diglyco-disalicylic Acid is put forward as possessing the full physiological activity of salicylic acid, and having certain advantages over acetyl-salicylic acid.

Dujardin-Beaumetz's Serum is said to contain potassium carbonate, potassium sulphate, sodium lactate, sodium phosphate, and sodium chloride.

Dyspnop Tablets, put forward as a prophylactic in angina pectoris, contain diuretin, agurin and extract of quebracho.

Eisensanguinose contains 1.2 per cent. of iron.

Erdol Prunier, exploited for the treatment of rheumatism and similar diseases, is quinoline salicylate.

Ergotine Blomberg is prepared from fresh ergot by infusion. After the inorganic acids have been removed, glycerin is added as a preservative.

Fichtel's Diabetiker Pulver, exploited for the treatment of diabetes, is said to contain malic acid, sodium citrate, sodium phosphate, sodium bicarbonate, and potassium bitartrate.

Figopur is a laxative syrup of figs.

Fleig's Serum is said to contain sodium chloride, calcium chloride, magnesium sulphate, sodium bicarbonate, sodium glycerophosphate and glucose.

Fritze's Enfettungstee, for the treatment of obesity, which has been described as a preparation of the fruits of dog-rose, whortleberries, elder flowers, senna leaves, peppermint leaves, walnut leaves, horse-

tail, rosemary leaves, sassafras wood and buckthorn bark, contains, according to Zernik, only the extracts of senna leaves and buckthorn bark.

Guajacol Haemofer is a name for *tinctura ferri sulphoguaiacol aperiens*.

Heufieber Salbe (hay fever ointment), contains paranephrin.

Horvell's Serum is said to contain sodium chloride, calcium chloride, potassium chloride, and sodium bicarbonate.

Huchard's Serum is an aqueous solution said to contain sodium phosphate, sodium chloride, and sodium sulphate. *Huchard's concentrated serum* is said to contain phenol in addition to these ingredients.

Hexametin is an effervescent salt containing hexamethylenetramine.

Iodex is the name for an iodine ointment.

Irbitol is a name applied to two entirely different preparations. One is a compound aromatic spirit, formerly called *spirussol*; the other is said to contain salicylic acid with menthol-camphor.

Kranecker and Lichtenstein's Serum is said to contain sodium chloride, and sodium carbonate.

Lactochol is the name for tablets containing milk ferments and decolorized gall extract.

Levurine Extractive Couturieux, marketed in the form of tablets, is said to represent beer yeast.

Lipojodin is the ethyl ester of an iodized unsaturated fatty acid. It has the formula $C_{19}H_{39}Cl=Cl-COOC_6H_5$. It is obtained from erucic acid and contains 41 per cent. of iodine.

Locke's Serum is said to contain sodium chloride, calcium chloride, potassium chloride, and calcium bicarbonate.

Luton's Serum is said to contain sodium phosphate, and sodium sulphate.

Mathieu's Serum is said to contain sodium sulphate, sodium phosphate, sodium chloride, and glycerin.

Megapist, exploited for removing gall-stones, is said to consist of iron chloride, aloes, rhubarb, buckbean, blessed thistle, boldo leaves, buckthorn bark, ammonia, and oil of peppermint.

Menthenon, prepared from oil of peppermint, is said to possess antiseptic properties. It occurs as a liquid with a disagreeable, bitter taste, and unlike oil of peppermint, it does not produce a cooling sensation when applied to the tongue.

Milchlin is a condensed skimmed milk.

Netter's Serum is said to contain sodium chloride, calcium chloride, potassium chloride, and sodium bicarbonate.

Nervacolade Chocolate, a nutritive preparation, is a chocolate containing iron combined with albumin, manganese, calcium glycerophosphate, and ovoid lecithin. *Nervacolade cocoa* contains iron hemaglobin, ovo-lecithin, and calcium glycerophosphate.

Noton are tablets, containing among other ingredients, sodium amidophenylarsinate.

Novoconeprhin contains novocaine and paranephrin.

Novotussin is the name for a saccharated compound extract of sage.

Notes and Queries.

NOTICE.—It is desirable that all questions to be answered under this head should be received before the fifteenth of the month and they must be accompanied with the name and address of the writer.

Queries are not answered by letter. The information supplied in these columns is intended for the benefit of our readers in general, not for the profit of the individual inquirer only.

Darkening of Compound Resorcin Ointment.—J. O. F., Illinois.—Many have been the suggestions offered for improving the appearance of compound resorcin ointment. To prevent or retard the change in color W. T. Hankey has suggested the use of anhydrous wool-fat and the addition of about 12 per cent. of starch. A. Hoch has reported that the color change was considerably lessened by the use of the white variety of petrolatum. It must, however, be borne in mind that the laws of most States forbid the sale of "modified" official preparations under official titles.

One of the first things necessary to secure an ointment that will darken but little—the color change cannot altogether be prevented—is to use a resorcin that is entirely free from related phenolic derivatives. The presence of these impurities is responsible for much of the complaint often heard because a resorcin "hair tonic" has dyed the scalp to an Indian tint. A satisfactory resorcin having been obtained, the next consideration is the securing of oil of cade that is nothing more. Then, having assured himself that the petrolatum has not an acid reaction and that there are no evidences of the wool-fat being rancid, the operator is ready to go ahead—but he should not adhere to the official directions.

First the resorcin should be reduced to the finest possible powder—if it acquires a pronounced pinkish tint a new start had better be made with cleaner utensils—the powdered resorcin should be mixed thoroughly with the petrolatum and the paraffin, previously melted together and not quite cooled. The zinc oxide and the bismuth subnitrate—of course they are to be of official quality—having been sieved together, should be incorporated with the wool-fat by slow and careful trituration. Into this ointment the fatty resorcin mixture should be gradually incorporated; the entire batch is then triturated or milled thoroughly, the oil of cade being slowly added the while.

Best Solvents for Sulphur.—"Old Reader," Georgia.—In the absence of any information as to your object in dissolving the sulphur, it seems that the best thing we can do is to refer you to the Pharmacopœia, in which it is stated that this element is "readily soluble in carbon disulphide, petroleum benzin, benzene, oil of turpentine, and many other oils; also in ether, chloroform, and in boiling aqueous solutions of alkali hydroxides." If experiments are made with these solvents it should be noted that all except the last two are highly inflammable.

"Unguentum Cydonium."—H. W., Pennsylvania.—Dermatologists sometimes use the synonym "unguentum cydonium" for a glycerin "jelly" made with quince seed instead of the usual tragacanth. A mixture of glycerin and quince seed mucilage affords practically the same thing. Boric acid and starch are occasionally added.

Opaque Paint for Blocking Out Photographic Negatives.—E. G. A., Pennsylvania.—The parts of a negative which are not desired in the print may be blocked out by painting the glass side of the negative with semi-liquid caramel. Another opaque paint consists of—

Burnt sienna.....	1 ounce.
Powdered acacia.....	2 ounces.
Water	10 ounces.

Any finely-powdered red, brown or black pigment rubbed up with mucilage of acacia will answer. The addition of a little glycerin to prevent cracking is frequently made.

Elixir of Lactated Pepsin.—M. E. M., Pennsylvania.—In the CIRCULAR for January, 1911, page 29, appears a lengthy article about the therapeutic and pharmacal shortcomings of the proprietary and official elixirs of lactated pepsin. Several formulas are given and reference is made to four preceding issues of the CIRCULAR in which other formulas and criticisms appear.

Formulas of this type are legion, and, not wishing to limit you to those referred to above—which may have proved unsatisfactory—we offer the following with which we have had practical experience:

Powdered pepsin, soluble.....	20 grains.
Pancreatin	200 grains.
Malt diastase.....	12 grains.
Lactic acid.....	12 minims.
Hydrochloric acid.....	20 minims.
Milk sugar.....	2 av. ozs.
Tincture of cudbear.....	3½ drams.
Special elixir....	enough to make 1 pint.

Triturate the pepsin with the milk sugar until they are intimately blended; stir in the other ferments and the acids and mix thoroughly. Dissolve the powder in the elixir and add the coloring.

Special Elixir.

Oil of sweet orange peel.....	100 minims.
Oil of citron.....	25 minims.
Oil of coriander.....	20 minims.
Oil of rose.....	10 minims.
Tincture of vanilla.....	2 ounces.
Syrup	2 pints.
Deodorized alcohol.....	2 pints.
Distilled water....	enough to make 8 pints.
Purified talc.....	enough.
Absorbent cotton.....	enough.

Pick into shreds a handful of absorbent cotton and place this in a wide-mouthed covered jar. Drop the oils on the cotton, shaking the vessel occasionally so as to get thorough distribution; add (all at once) a mixture of the deodorized alcohol and 3 pints of distilled water; add the tincture of vanilla. Shake this mixture thoroughly for several minutes at a time, about six times daily for two days. Filter in a covered funnel through double filter paper sprinkled with purified talc. Finally add the syrup and enough water to make the required volume.

Liquid Soap.—"Doctor," New Hampshire.—When you wrote your query you doubtless had not received your copy of the CIRCULAR for June, on page 304 of which appear several formulas, suggestions and references under this head.

Making Hydrogen Dioxide and Other Dioxide Preparations.—L. D., Montana.—Concerns which manufacture hydrogen dioxide in a commercial way guard their individual processes as trade secrets. The usual text-books on pharmacy give the fundamental principles of some of the processes employed.

Peroxide Cold Cream.

Suggestions for making this preparation are given in the adjoining column, in answer to another querist.

Peroxide Tooth Powder.

The right to the use of calcium peroxide and the perborates and percarbonates of all the alkaline earth metals in the manufacture of tooth powders is claimed by one manufacturer, under a patent issued by the United States government. A note on this phase of the subject may be seen in the CIRCULAR for November, 1907, page 737.

An oxygen-yielding tooth powder which does not contain calcium peroxide or any perborate or percarbonate may be made of—

Magnesium peroxide.....	1 dram.
Precipitated chalk.....	6 drams.
Powdered soap.....	20 grains.
Oil of wintergreen.....	12 minims.

It has been said that bactericidal tooth preparations may do harm by destroying beneficent as well as malignant bacteria when used in the mouth.

Peroxide Tooth Paste.

Just to what extent and how long solution of hydrogen dioxide will remain active when combined with other ingredients necessary to form a tooth paste, we are unable to say, but herewith is a formula for a dental cream which calls for that rather unstable ingredient:

Precipitated chalk.....	5 parts.
Powdered castile soap.....	1 part.
Solution of hydrogen dioxide.	
Glycerin, of each.....	enough.
Form a paste, and flavor to suit.	

Converting "Old Style" into the Metric System.—"Constant Reader" is in trouble and comes to us for help. He writes:

Please explain me, the principle, how to convert the following examples, from Apothecaries' system into the equivalent of metric system.

- (1) 0.03 gtt. into cubic centimeter.
- (2) 0.02 gr. into gramme.

There is no absolutely correct mathematical way of converting a certain weight or measure of one system into terms of another system. Bases for such converting are approximately determined by actual experiment; but, of course, when the equivalent of 1 gramme, for instance, in grains has been settled upon, the equivalent of a fraction or a multiple of a gramme in grains may be calculated arithmetically, as may the equivalent of any number of grains in grammes or grammes in grains.

Actual experiment has shown that for all practical purposes 1 gramme is equivalent to 15.4324 grains. Therefore 1 grain is the equivalent, in grammes, to 1 divided by 15.4324, which is 0.0648. Now, if 1 grain is the equivalent of 0.0648 gramme, it is plain that 0.02 grain is equivalent, in grammes, to 2/100 of 0.0648 grammes, or 0.0648×0.02 , which is 0.001296 gramme.

This disposes of the second half of the question, but the first half is not so easy. By "0.03 gtt." is of course, meant 0.03 drop, and as drops vary in size it will be necessary for us to know the size of the drop in question before we can proceed to calculate its equivalent. As no information is offered on this point we must acknowledge our inability to answer this half of the question. However, if it is desired to ascertain the equivalent in cubic centimeters of 0.03 minim, that is an easy matter. It has been settled by experiment that 1 cubic centimeter is approximately equal to 16.23 minims. Proceeding as before we find that 1 minim is the equivalent of 0.06161 cubic centimeters, and 0.03 minim is equivalent to 0.0018483 minim.

In the CIRCULAR for April, part 2, page 147, may be found a useful table of approximate equivalents of metric and old-style weights and measures.

Greaseless "Peroxide" Cream.—S. D. C., New Jersey.—By adding the desired quantity of 30-per cent. solution of hydrogen dioxide to the finished cream made by the process described in the CIRCULAR for May, page 257, a typical "peroxide" cream is produced. A freshly made solution of sodium peroxide may be used instead of the solution of hydrogen dioxide.

Other notes on this subject, with formulas, may be seen in the issues of the CIRCULAR for February, 1909, page 77; and November, 1908, page 566.

Moisture in Boric Acid.—W. C. T., New Jersey. was informed by a traveling salesman that the boric acid the salesman had to offer contained but 1 per cent. of moisture and was therefore to be preferred to the commercial acid which the informant said contained 37 per cent. of moisture. W. C. T. was puzzled to reconcile this information with the text of the Pharmacopœia which describes the official product as containing "not less than 99.8 per cent. of pure boric acid $[B(OH)_3]$," so he sought our aid.

Boric acid U. S. P. (H_3BO_3) contains no uncombined water of crystallization. It does, however, contain something more than $43\frac{1}{2}$ per cent. of combined water of hydration, and loses about 29 per cent. when heated to $100^\circ C$. At this temperature meta-boric acid or glacial boric acid (HBO_2) is formed, and, if boric acid be heated, above $160^\circ C$., it loses all its water of hydration and becomes boric anhydride or boron trioxide (B_2O_3). It is scarcely necessary to say that neither HBO_2 nor B_2O_3 is boric acid U. S. P.

So far as we are aware, boric acid containing uncombined water of crystallization does not exist.

Alcohol Percentage.—Referring again to the query of M. S. G., Pennsylvania (see the CIRCULAR for last month, page 310), it should be stated, although he did not request this information, that when the percentage of alcohol is declared on a label, the percentage of absolute alcohol by volume is meant. This is in accordance with food inspection decision 54, issued by the secretary of agriculture. When a certain proportion of alcohol of less than 100 per cent. strength (as the usual 95 per cent. alcohol, for instance) is used in a preparation, the declaration on the label should not refer to the proportion of the weaker alcohol employed, but to the proportion of absolute alcohol represented by the weaker spirit.

Paint and Varnish Removers.—C. E. H., Iowa.—Some of the more successful paint and varnish removers on the market are covered by basic patents which prohibit the use by unauthorized manufacturers of their principal ingredients, which are alcohol, benzol and wax or their equivalent.

Perhaps you would find a preparation made according to one of the following formulas efficacious:

I.

Flour (or wood pulp).....	385 parts.
Hydrochloric acid.....	450 parts.
Chlorinated lime.....	160 parts.
Oil of turpentine.....	5 parts.

This mixture is applied to the surface and left for some time. It is then brushed off, and brings the paint away with it. It keeps moist quite long enough to be easily removed after it has acted.

II.

Sodium hydroxide.....	5 parts.
Solution of sodium silicate.....	3 parts.
Flour paste.....	6 parts.
Water	4 parts.

III.

Soap	10 parts.
Potassium hydroxide.....	7 parts.
Potassium silicate.....	2 parts.

IV.

Sodium hydroxide.....	3 pounds.
Whiting	4 pounds.
Flour	1 pound.
Water	1/2 gallon.

Dissolve the sodium hydroxide in part of the water and mix the whiting with more water to form a cream. Add the sodium hydroxide solution to the whiting cream, then mix in the flour made into a paste with the rest of the water.

For use, 1 pint of this solution is mixed with about 2 gallons of water.

A note on this subject embodying other formulas, some of them quite different from any of the foregoing, appears in the CIRCULAR for March, 1910, page 123.

Face Powder.—A. K. P., New Jersey.—A "healthful" face powder, we fear, does not exist. While a simple powder may in many instances conduce to bodily comfort by protecting the skin from the injurious effects of sun or rain, the least harmful of powders will upon continued application exert a pernicious influence upon the skin. The injurious effects of a face powder consist chiefly in the formation of comedones due to the clogging of the dermal pores by a mass formed of the powder and the sebaceous secretions. The more injurious effects are due to the use of a salt of lead or bismuth as an ingredient, the absorption of which gives rise to systemic poisoning by the metal. Powders made with a base of talc or kaolin are perhaps the least injurious. These substances are less absorbent than the starches and also more protective.

Saalfeld gives the following formula for a simple white cosmetic powder:

Zinc oxide.....	215 parts.
Finest talc.....	345 parts.
Heavy magnesium carbonate.....	35 parts.

This may be perfumed as desired and colored; so-

lution of carmine is used to produce a rose tint, and solution of carmine and yellow ochre combined give the brunette tint known as Rachel.

Zinc stearate, or oleo-stearate, is said to be superior to zinc oxide as a dermatological application. Many dermatologists advise against the use of the zinc salts for the reasons given above with reference to the salts of lead and bismuth. In the foregoing formula the zinc oxide may well be replaced with a high grade of white kaolin.

A number of formulas for basic and complete face powders appear in the CIRCULAR for August, 1910, page 416.

Rubber Tire Cement.—I. L., New Jersey.—Cements for thin rubber fabric such as the inner tubes of vehicle tires are usually simple solutions of gutta-percha or scrap unvulcanized rubber in carbon disulphide or benzol; sometimes a little rosin or shellac is added. The first of the following formulas is taken from a previous issue of the CIRCULAR:

I.

Gutta-percha	1/2 av. oz.
Rosin	40 grains.
Carbon disulphide.....	8 ounces.

II.

Scrap rubber.....	1/2 ounce.
Rosin	1/8 ounce.
Beeswax	1/4 ounce.
Carbon disulphide.....	8 ounces.

Digest the rubber in 4 ounces of the carbon disulphide for twenty-four hours; add the rosin, finely powdered and lastly the beeswax mixed with the rest of the solvent.

For cuts or rips in outer tires a heavier cement is necessary, the following being a typical formula:

Gutta-percha	2 ounces.
Caoutchouc	4 ounces.
Isinglass	1 ounce.
Carbon disulphide.....	1 pint.

In handling carbon disulphide or benzol or preparations containing either the fact that both are extremely inflammable should be borne in mind.

A solution of gutta-percha was official in the 1880 Pharmacopœia; the formula may be found in the appendix to the National Formulary.

"Mortification Powder."—A. W., Pennsylvania.—This medicament (?) is a survivor of the day when gun-powder was taken for "that run-down feeling," and no household was considered ready for summer until the members thereof had been "spring-cleaned" by heroic doses of sulphur and molasses and cream of tartar. The powder concerning which you inquire is the analogue for human use of the veterinary condition powder, and has much the same composition; as the constituents of "horse powder" vary considerably with geographical location, so does mortification powder. The following formula was at one time quite popular not a hundred miles from your city:

Potassium bitartrate.....	60 parts.
Potassium nitrate.....	15 parts.
Sulphur	60 parts.
Wood charcoal.....	3 parts.

The ingredients are powdered separately and mixed carefully, the saltpeter being added last.

Oils, Butter, Etc.—D. W., Mississippi, asks some five-and-a-half questions, as follows:

1. What is the wholesale price of coconut oil?
2. What is the price of peanut oil?
3. I notice that *vegetable butter* is being made from coconut oil, a little cream, and yolk of eggs. It sells for 14 cents a pound. Can you tell me (a) how it is made, and (b) whether it could be made on a small scale and sold profitably?
4. What is the scent or perfume called *asfalath*?
5. From whom can the coconut oil be bought?

Our answers to them, as far as we are able to make them, follow:

1. About 8 to 10 cents a pound.
2. About the same.
3. (a) There are many preparations on the market which may be described roughly as "vegetable butter," and some of them contain coconut oil, butter, cream, or egg yolks. Failing to find just the information desired by our querist nearer home, we wrote to the editor of a dairy paper in the cattle belt, and to the editor of an egg paper out West, but could learn nothing of importance on the subject from either of them. We also applied at the department of agriculture and to a well-known patent attorney at Washington. From the former we received this reply:

In regard to the use of prepared coconut oil in the manufacture of a butter substitute, I would say that we do not think the department of agriculture has ever published anything on this particular subject, as such a process is rarely if ever practiced in this country.

Regarding the records of the patent office on this subject, the attorney, William G. Henderson, wrote:

The delay in acknowledging receipt of your favor of the 14th inst., received the 15th, has been occasioned by the time necessary to look up the subject of "vegetable butter" made of coconut oil, cream and yolk of eggs, forming the subject of your inquiry.

I am enclosing herewith copy of patent No. 430,536 to Delia McGregory, which describes a butter compound comprising the yellow portion of eggs added to a proportion of milk and a proportion of dairy butter; also copy of patent No. 489,814 to Messrs. Hudson, Strong and Bunch, which describes a butter compound comprising ordinary butter, sweet milk and coconut oil; and also patent No. 390,682 to Paul Kolesch, which describes a vegetable butter compound comprising coconut oil, palm oil and refined alcohol. These are the nearest patents found to the vegetable butter compound specified in your letter. There are a number of other patents on artificial butter, but none of them is any nearer to what you describe than the patents mentioned above.

The disposition of the patent office at the present time is against the granting of any additional patents on butter compounds. There are some other patents that specify the yolk of eggs as one of the ingredients in artificial butter compounds, but they are not any closer than the patents of which copies are being sent to you.

On the subject of coconut oil or butter, Dr. Harvey W. Wiley, in his book, *Foods and their Adulteration*, says:

This is a very abundant natural fat and is obtained from the kernel of the coconut, especially the two species, *cocos nucifera* L. and *cocos butyracea* L. At ordinary temperature coconut oil is of the consistency of fat. Its taste is pleasant, and it possesses an odor which is not disagreeable or undesirable. It differs from cacao butter in the ease with which it becomes rancid, at which time it takes on a very disagreeable flavor and taste. The coconut oil of commerce is distinguished by different names, according to the country in which it is made.

While we have had no experience in the manufacture of vegetable butter, that being somewhat out of our line, we are at least able to infer from what we have found on the subject that coconut oil is in itself a sort of vegetable butter, and the addition to it of egg

yolks for color and milk or cream for flavor, is but a matter of detail.

3. (b) We do not know; but on general principles it may be stated that manufacturers who work on a small scale are at a disadvantage as to cost, compared with those who do business on a larger scale. In the drug business that disadvantage often is offset by the fact that the retail manufacturer is at no extra expense for rent, help and equipment.

4. Perfumery experts in the trade to whom we have referred this question seem unable to throw any light upon it.

5. From wholesale druggists generally, who either carry it in stock or will get it for customers. It might pay those who use very large quantities of it to buy direct from importers, or to import it themselves. Names of coconut oil brokers will be supplied by letter to those who need their services.

Insect Destroyers.—T. S. C., Illinois, wants a formula for a good louse and other insect destroyer in powder form, and also one for a liquid louse killer.

So far as we know there is nothing quite so practicable and efficacious as an insect destroyer in powder form, as pulverized pyethrum flowers—but the powder should be pure and either fresh or properly preserved. Notes on the use of *cevadilla* and *hellebore* as insect powders appear in the issues of the CIRCULAR for June, page 309, and May, page 253.

As a liquid louse killer tincture of larkspur seed is much used, we believe, as is also tincture of *cevadilla*. A formula follows:

Tincture of Larkspur Seed.

Potassium carbonate.....	1 ounce.
Green soap.....	2 ounces.
Ground larkspur seed.....	8 ounces.
Alcohol	2 pints.
Water	2 pints.
Tincture of lavender.....	to perfume.

Macerate for ten days, decant the clear liquid, place the dregs in a percolator and allow the liquid to drip out.

Other formulas for a preparation of this kind may be found in the issues of the CIRCULAR for April, 1910, page 166; and June, 1909, page 290.

Larkspur seed are poisonous and appropriate care should be used in handling preparations made from them. Their poisonous effect may be produced by application to an abraded surface.

Gourard's Oriental Cream.—O. F. K., Ohio.—In its issue for April, 1907, the *Sanitary Bulletin* of the New Hampshire Board of Health published the results of examinations of a large number of toilet and other preparations. The article is reprinted in the CIRCULAR for September, 1907, page 589. In this report it is stated that Dr. T. Felix Gouraud's oriental cream or magical beautifier "was found to consist of approximately ½ ounce of calomel suspended in a short half-pint of water."

Stockholm Tar.—L. H. H., Missouri.—This is a name, common in Great Britain, for ordinary wood tar which enters commerce via the city of Stockholm. It occurs in the dispensaries and other reference works on pharmacy and materia medica.

Price of Elixir of Lactated Pepsin.—F. P., West Virginia, writes us a letter in which he says:

Will you please give us some information regarding the elixir of lactated pepsin, 40 grains to the ounce, and the method of manufacture so that it would be profitable for us to manufacture our own. We buy it for \$1.50 a gallon, in 5-gallon lots, and any way and any formula we can ever create to contain the constituents costs far above that amount.

When a powdered drug is offered at a lower price than the same drug sells for before it is powdered, the wary buyer will draw his own conclusions. And it is the same way when a mixture or solution of drugs is offered for less than the price of the drugs and the solvent. We do not say that this cap fits the seller of the elixir in question, but—well, as before remarked, each man may draw his own conclusions. One conclusion forces itself upon us as we read our querist's letter, and that is this—either the formula for the elixir which sells at \$1.50 a gallon calls for very small proportions of the various active ingredients which usually go into a preparation of this kind; or, the materials that are used are "short" in quantity or quality.

A similar question of price was discussed in the CIRCULAR for May, 1908, page 232, the preparation about which this question arose being essence of pepsin, N. F., which was sold by a physicians' supply house for \$1.50 a gallon. At that time we calculated that to make a single gallon of the "essence" would probably cost the retail druggist somewhere in the neighborhood of \$2.75. A figuring friend in the trade estimated that a wholesaler might make the essence at a cost to himself of \$1.86.

Just exactly what is meant by "elixir of lactated pepsin" we do not know, as there is no official formula under this name. In the National Formulary is a formula for the essence of pepsin just referred to, which is really a "lactated" product, and one for compound elixir of pepsin, which we think is probably more nearly the formula our querist has in mind. To make a gallon of the latter would probably cost a retail druggist not far from \$3, and by cheapening the elixir as much as possible by using low grade materials and a minimum of alcohol—producing a preparation which it would be illegal to sell under an official name—the cost could hardly be brought down to \$1.50. It seems probable that this \$1.50 elixir of lactated pepsin is made to meet the demands of those who are not over particular about knowing the composition of medicinal preparations so long as their prices are "right."

Solution of Peptonate of Iron with Manganese.—S. P., California, wants to know how the ingredients of this preparation may be manipulated so as to yield a product having no objectionable odor. "So far as I can see," he writes, "the N. F. product is three or four times as strong as the various makes on the market."

This whole question was taken up and discussed in an exhaustive manner by W. H. Harrison in a paper which may be seen in the CIRCULAR for May, 1908, page 210. The length of this paper precludes its reproduction here and to abstract it would be to do the subject an injustice.

At a discussion of this preparation at a meeting of the New York branch of the American Pharmaceutical Association reported in the CIRCULAR for April,

1910, page 198, the J. A. Dunn process for preparing it was described by Cornelius De Yonge. In this process the peptone is added to a solution of basic ferric chloride, and when the mixture begins to thicken the sodium citrate is added; when the mixture has cleared up the soluble manganese citrate is dissolved therein. Tincture of vanilla and spirit of curaçao are used as the flavor.

The improved Dunning formula for making this solution was published in the CIRCULAR for May, 1907, page 361.

Elixir of Calisaya, Iron and Manganese.—T. A. H., North Carolina.—A satisfactory working formula for an elixir of calisaya, iron and manganese depends much upon the form in which the prescriber wishes to give the iron and the manganese and upon the doses he desires. The simplest elixir containing the required medicaments would be a solution of manganese citrate and tincture of iron citro-chloride in elixir of calisaya N. F. As a detailed process for making such an elixir representing an average dose of the several constituents in each dessertspoonful we offer the following:

Quinine citrate.....	2 grammes.
Cinchonine sulphate.....	1 gramme.
Cinchonidine sulphate.....	1 gramme.
Manganese citrate.....	4 grammes.
Tincture of iron citro-chloride.....	24 c.c. (mils).
Glycerin	150 c.c. (mils).
Alcohol	250 c.c. (mils).
Tincture of turmeric.....	2 c.c. (mils).
Purified talc.....	15 grammes.
Oil of orange.....	2 c.c. (mils).
Oil of lemon.....	2 c.c. (mils).
Syrup	200 c.c. (mils).
Distilled water enough to make	1000 c.c. (mils).

Dissolve the two citrates in 300 c.c. (mils) of distilled water with the aid of a gentle heat, and the sulphates in the alcohol. Add the glycerin and the oils to the alcoholic liquid; add the syrup to the aqueous liquid. Shake the alcoholic liquid with the talc; mix the two liquids and set aside for a day or two, shaking occasionally. Filter through paper; add the two tinctures and filter again, adding enough distilled water through the filter to produce the required volume.

Liquid Shampoo Without Alcohol.—C. K.—Perhaps you will find the following formula, taken from a recent number of the CIRCULAR, satisfactory:

Ammonium carbonate.....	1 ounce.
Borax	1 ounce.
Soap, dried, in fine powder.....	1 ounce.
Oil of orris.....	enough.

Directions for use: Place in a vessel of boiling water, and cover tight. When the water has cooled sufficiently, apply as a wash to the hair, then rinse.

Palmer's Vegetable Lotion.—L. T., Ohio.—So far as we know the composition of this preparation has never been divulged to the public. The files of the CIRCULAR contain formulas for toilet preparations of all kinds, and among them you will doubtless be able to find suggestions for preparing a lotion which will make you independent of the large manufacturers of this line of goods.

Cigars, Clerks, Formulas.—Frank E. McKamy, Illinois, is a man who is so full of kindness and information that he is moved by the one to put the other at the disposal of all his brother pharmacists. He writes:

Keeping Cigars in Condition.

Like numerous other druggists who carry a small line of cigars, I have had considerable difficulty in keeping my stock in that line of merchandise anywhere near moist.

I tried the water pans, clay moisteners, and numerous devices without success. Finally I hit upon this plan, which "works like a charm": First of all, I do not attempt to get along without a hygrometer. I place a brick in the lower part of the case, to serve as a base for a small alcohol stove. Then a small pan of water is placed over the lighted stove, and as the water rises in temperature the vapor rises and covers the glass of the case as if it was frosted. When this stage is reached, I extinguish the flame, and leave the cigars to do the rest. They absorb the moisture in about ten minutes, leaving the glass clear again, and not streaked.

By following this method, I am able to keep the cigars at any desired stage of moisture, and at little inconvenience.

Clerks Who "Knock" Pharmacy.

I would like to say a word to the clerks that are "knocking" pharmacy.

It seems to me that a man is a chump, and that he is considerably lacking in nerve, if he raises a hue and cry about the long hours and the insultingly low salary he receives as a drug clerk, and then the first time he is out of a job, hot foots it to the nearest wholesale house to see if anybody there knows of a vacant position in a pharmacy.

If the drug clerk envies plumbers or masons their hours and salary, why doesn't he go after the same for himself? Simply because he considers himself above laying brick, or screwing pipes together; he is a professional man, a pill roller. If he wants to sit down with a high collar on, and be dignified, why doesn't he study for the ministry? But if he chooses to stick to pharmacy, then let him pull off his coat, forget his professionalism, and get down to plain business.

I enclose formulas of several preparations that we are using in our prescription department with satisfaction. They were devised by Dr. E. V. D. Morris, who is not only a registered pharmacist, but a physician and a dentist as well:

Celery, Iron and Kola Compound.

Iron and quinine citrate (soluble).....	40 grains.
Fluidextract of celery seed.....	90 minims.
Fluidextract of kola nut.....	2 drams.
Angelica wine.....	1 pint.
Aromatic elixir.....	enough to make 2 pints.

Improved Cathartic Pill.

Compound extract of colocynth.....	½ grain.
Jalapin	¼ grain.
Podophyllin	⅛ grain.
Leptandrin	¼ grain.
Extract of hyoscyamus.....	⅛ grain.
Extract of gentian.....	¼ grain.
Capsicum	1/12 grain.
Oil of peppermint.....	enough.

Compound Syrup of Sarsaparilla, Clover and Burdock.

Fluidextract of sarsaparilla.....	4 ounces.
Fluidextract of stillingia.....	2 ounces.
Fluidextract of red clover.....	2 ounces.
Fluidextract of senna.....	1½ ounces.
Fluidextract of glycyrrhiza.....	1 ounce.
Fluidextract of burdock.....	1 ounce.
Oil of anise.....	½ dram.
Oil of sassafras.....	½ dram.
Oil of gaultheria.....	½ dram.
Alcohol (80%).....	4 ounces.
Simple syrup.....	enough to make 4 pints.

The foregoing preparations are prescribed quite extensively by the Doctor, alone and in combinations. I hope they may prove of interest to some of the readers.

It is most gratifying to us to see this evidence of a reciprocal feeling on the part of a reader of our Notes and Queries Department. No man "knows it all"—not even an editor—and it is only by gathering, dis-

seminating and preserving information from many sources that a solid foundation for real progress in learning is laid. This is not the first time that we have been thus favored by Mr. McKamy, and we hope it will not be the last; and we trust that many others among our readers will be moved by his example to offer interesting notes and formulas for the benefit of all.

Two British Formulas.—C. S., New Jersey.—The two formulas for which you ask are given below:

Tincture of Quinine, B. P.

Quinine hydrochloride.....	175 grains.
Tincture of orange.....	1 pint.

Ammoniated Tincture of Quinine, B. P.

Quinine sulphate.....	175 grains.
Ammonia water.....	2 fl. ozs.
Alcohol (60%).....	18 fl. ozs.

Mix the ammonia water and alcohol, in this dissolve the quinine sulphate, set aside for three days, and filter.

A British fluid ounce is equivalent to 7 fluid drams, 41 minims, apothecaries' measure; and a British pint (imperial) contains 20 such ounces. When the metric system is used, no explanation of whether British, imperial, apothecaries', fluid or solid weights or measures are meant—a gramme is a gramme and a cubic centimeter is a cubic centimeter, and that is all there is about it.

Tracy's Vegetable Healing Balm.—G. A. G., New York, wants to know something of the composition of this preparation, which, he says, was made in New Hampshire some forty years ago—perhaps at Nashua or Concord. He asks that we or some reader of the CIRCULAR help him. As we are unable to supply the desired information we pass the request along to our readers and hope that one of them may be able to tell our querist what he wants to know.

Hints on Making Bay Rum.—As a postscript to his article on "Real Bay Rum," which appears in the CIRCULAR for April, page 183, Frederick T. Gordon sent the note which is printed below. It reached us too late to be incorporated in the original article, and has been crowded out of subsequent issues until now.

In the formula given for making a bay rum that will approximate closely in odor and qualities the original West Indian bay rum, it should be understood that the question of cheapness has not been considered any more than it is in manufacturing any first-class pharmaceutical product. There are also different tastes, and some would prefer only a small proportion of Santa Cruz rum while others would enjoy the reminiscent odor of the fast-disappearing *real* article.

The point I desire to emphasize is the use of a good quality of rum in lieu of alcohol and water in making bay rum, the proportionate amount to be decided by the tastes of the maker's customers. Of course, the proportion of alcohol used may be varied to correspond with the price to be charged for the product, that is, the cheaper the bay rum the less alcohol would be used. However, it must be borne in mind that when the proportion of alcohol is diminished there is less of the oil of bay in solution in the finished product, so that if you decide to use a weak alcoholic menstruum there is no use of wasting expensive oil of bay by putting into the mixture more than the solvent will dissolve. And here I believe is the cause of inferiority in much of the stuff called "bay rum"; to cheapen the article the makers do not use enough alcohol to dissolve a proper proportion of the essential oils, so while they may use a liberal amount of oils most of them are left in the

clearing medium or on the filter-paper. This is one reason the bay rum often becomes "cloudy" after keeping—there was not enough alcohol used at the start, but perhaps the high temperature of the work-room caused more oil to dissolve than could be held in solution at a lower temperature, hence in the cooler store the oil separated and made the bottled product appear turbid. This fact is considered in the making of bay rum by distillation—the freshly distilled product is collected in large containers and allowed to stand for some time, any excess of oil rising to the surface; then the bay rum for bottling is drawn through faucets from the bottom of the tanks, usually needing filtration. I have been told that sometimes enough oil of bay collects at the top to pay for collection.

The thing to bear in mind is that bay rum is a luxury of the toilet, and if it isn't good it isn't worth using. It is the pungent aromatic odor and the cooling effect of the evaporating alcoholic fluid that makes it so refreshing and grateful to the skin; you might just as well use oil of citronella if you only want something that smells like a barber shop. Make your bay rum of full alcoholic strength and it will be appreciated.

A Good Ink Formula.—Charles Steck, New Jersey, writes:

I have made ink according to a formula published with several others, a year or more ago and find it very satisfactory; the only trouble is to get indigotin—the jobber sent sulphate of indigo instead. Without this initial blue the ink has a gray-green appearance at first, then turns black after a few hours.

The formula referred to is doubtless the one given by Prof. Scoville in an exceptionally interesting paper on the making of ink, appearing in the CIRCULAR for January, 1909, page 13. It is here reproduced:

Tannic acid.....	3 ozs. av.
Gallic acid.....	1 oz. av.
Ferrous sulphate.....	2 ozs. av.
Solution of ferric chloride, U. S. P.	1 fl. oz.
Indigotin	1½ ozs. av.
Acacia	60 grains.
Phenol	60 grains.
Water	1 gallon.

Dissolve the tannic and gallic acids and indigotin in 6 pints of warm water. Dissolve the iron salts, acacia and phenol in the remaining (quart of) water and mix with the first solution. Shake frequently during several days. Allow the ink to stand at least two weeks before filtering.

A correspondent (see the CIRCULAR for April, 1910, page 177) said some very uncomplimentary things about this formula, to which its author replied that he made ink according to his printed formula; that it was a good article; that he had made tests by exposing writing done with this ink to sun and water, and that the ink stood them well. "All that I can say," he added, "is that it suits me, and I am sorry to have bothered the other fellows who are of a different mind." As to the solubility of indigotin, Prof. Scoville said that he found a soluble kind on the market which he used in making his ink.

Licorice Paste.—"Subscriber," Massachusetts.—We believe the licorice paste used by manufacturers of tobacco is nothing more than crude extract of licorice described in the United States Dispensatory and other pharmaceutical text-books. Your attention is also called to the solution of extract of licorice of the National Formulary.

Ant Exterminator.—H. H. S., Illinois, and J. H. K., North Carolina.—In the CIRCULAR for September, 1910, page 470, is an exhaustive note on destroying

ants in which are incorporated many formulas. This note is too long to be reproduced in full so soon, and to reproduce only a portion of it would be to do the subject an injustice.

Anonymous Queries.—R. S. B., New York; and L. Y. L., Maine.—Your attention is called to the standing notice at the head of this department in which it is stated that queries, to be answered by us, must be accompanied with the name and address of the writer. Not only do we keep that notice standing, but almost every month we print a note similar to this one, calling special attention to it; and now and then we give our reasons for having made such a rule.

Appeals to Readers.—Information is sought concerning the articles listed below. We ask for such help as our readers can give:

Fidol.—R. C., New York. Where may it be obtained?

Tracy's Vegetable Healing Balm.—G. A. G., New York.

Tornado—for bed bugs. Where may it be obtained?

Asfalath—a perfume.—D. W., Mississippi.—What is it, chemically?

Palmer's Vegetable Lotion.—L. T., Ohio.

Pill Mass.

To overcome the difficulty of incorporating liquids, ethereal oils, balsams, creosote and similar substances into pills, Danzel (*Bull. comm.*) recommends an excipient prepared according to the following formula:

Extract of licorice.....	4.0
Powdered tragacanth.....	2.0
Powdered soap.....	2.0
Wheat starch.....	1.2
Powdered sugar.....	0.6
Magnesium hydroxide.....	0.6

Solid substances should first be mixed with mucilage of acacia, honey, etc., before being incorporated into this excipient.

Gray Oil.

Adams, writing in the *Journal of the Royal Army Medical Corps*, suggests the following formula for a mercurial injection, to be prepared according to art:

Mercury	20 grammes.
Anhydrous wool-fat.....	30 grammes.
Butyl-chloral hydrate.....	3 grammes.
Liquid petrolatum.....	to make 100 c.c. (mils).

Photographic Retouching Medium.

Oil of turpentine.....	6 ounces.
Oil of spike lavender.....	2 ounces.
Pale rosin.....	4 ounces.
Linseed oil.....	32 minims.
Terebene	80 minims.
Amyl acetate.....	1 ounce.

To Remove Corns and Warts.

Saturate one ounce of alcohol with salicylic acid, and add 50 drops of castor oil. Apply by dampening night and morning.—Dr. James L. Linder in the *Medical World*.

College Graduates Before the Board.

"What kind of pharmaceutical education can it be that our young men and women receive during their two or three years at college, if, when they are fresh from the class rooms and quizzes only one in every three or four or half a dozen or more is able to pass a board examination? Or, what kind of a board examination are they expected to pass?"

These questions, along with some others and a few figures and comments, in which the boards of New York and Pennsylvania are mentioned, appear in the CIRCULAR for May, page 238. In the issue for June, page 314, is published a letter from Louis Emanuel, president of the Pennsylvania Board of Pharmacy, on the subject. He states that of 56 applicants for registration as pharmacists examined in Pennsylvania in February, only 13, or less than 1 in 4, were successful. All the applicants had had four years of experience in compounding and dispensing medicines on physicians' prescriptions, and each one was a graduate of a "reputable college of pharmacy." Of the failures, the Philadelphia College of Pharmacy had 20 per cent.; the Pittsburg College of Pharmacy also had a 20 per cent. failure; and the department of pharmacy of the Medico-Chirurgical College of Philadelphia had a 40 per cent. failure.

Following up his previous letter, Mr. Emanuel sends us a further communication in which he shows himself to be quite in earnest in his endeavor to locate the blame for the inconsistency which we have pointed out, as he encloses with it a set of the questions used at the February examination of his board, and three sets of answers, given by three candidates, respectively, who were graduates, respectively, of the three colleges of pharmacy.

Mr. Emanuel writes:

College Curricula and Board Examinations.

I am a radical of RadicalsVille, and a muckraker from Muckrakersburg, and yet I feel like a fool rushing in where angels fear to tread.

The practice of pharmacy to-day may be compared to the "sick man of Europe," the various interests jealously regarding one another with distrust lest one or the other will reap a greater division of the spoils of dismemberment.

Here we have the pharmaceutical manufacturing interests, the dispensing doctor, the manufacturer of physicians' supplies, the general store interests, and lastly, but not least, the cut-rate interests, ravenously struggling for the largest share of that art, which the slaves of pharmaceutical toil keep in existence by the transfusion of new blood from year to year.

For nearly sixty years legislation has endeavored to confine the practice of pharmacy to those who are most fitted for it, but constitutional prerogatives have baffled the most skilled legislative experts, so that to-day only that part of the art of pharmacy is protected which applies to the compounding of prescriptions and the dispensing of drugs, which must be done by those who are deemed to be qualified and for which an examination is required.

Some schools of pharmacy do not take kindly to the examination of their graduates as to their qualifications, their argument being that after a person has had several years' experience in a drug store and is graduated, he should not be obliged to undergo an additional test; and some hold that a term in their pharmaceutical laboratory—where no postage stamps or soda water, etc., etc., are sold—is better than the four years' experience obtained in most drug stores.

The pharmacy board has examined many graduates of some of these schools, and I am prepared to prove that to register all graduates without a final test by a disinterested authority would convert some schools into depart-

ments for revenue primarily, and educational purposes secondarily.

The object of the present-day school-of-pharmacy curriculum seems to be to teach fundamental principles, and it is up to the graduate to apply these principles as the occasions present themselves. The methods of teaching pharmacy and its collateral branches appear to differ, and as I am not competent to enter into this feature of the matter under consideration, I will not give it attention. However, I feel that there is room for a systematic method, or rather a universal method or standard that should be adopted by schools of pharmacy for ascertaining the amount and character of knowledge which a student has absorbed before he is graduated. And I am inclined to observe that the teachers may forget when they note the failures to pass a board examination that all their students have not uniform capacities or capabilities, and as this is true, they should not expect to obtain a uniform result.

A pharmacy board's examination should be so constructed as to ascertain the amount of knowledge of the practice of pharmacy which a candidate may have who desires to hold himself out to the public as competent to conduct properly a first-class drug store. Of course our present board thinks its methods are proper, that they leave little to be improved upon, and that through these methods they are able to separate the efficient from the inefficient. The efficient are certainly entitled to the reward of success, and those not so efficient, either naturally or through indolence or indifference, must be expected to remain in the inefficient class, no matter whether they have been graduated or not.

I am not in favor of the board shaping its examinations in harmony with a college curriculum, because this would be in the nature of a "gentleman's agreement," which might in time lead to unsavory results. The college curriculum amounts to nothing if the graduation requirements are neglected. But with a broad curriculum, a high exit or graduation requirement, the board's examinations will appear insignificant.

I am inclined to contend that a college curriculum ought to embrace not only fundamental principles, but also matters of up-to-date concern. Indeed it may include advance matters or knowledge of pharmacological research, and thus keep in advance rather than in the rear of that element which is fast reducing the practice of pharmacy to a condition of barter and trade. Professionally a graduate should know how to distinguish between Hungarian and German chamomile, that the receptacle of the flower heads of *matricaria chamomila* are naked, conical and hollow; that the receptacles of *anthemis arvensis* and *maruta cotula* are chaffy, conical and solid. But this knowledge is of little practical value. Gray oil is a 10 per cent. mixture of mercury in a bland oil, and exported by a foreign manufacturer for hypodermic use; a knowledge of the manufacture of a 10 per cent. mixture of mercury in a bland oil would be of practical value and tend to cherish the art of pharmacy. In the same line are *mercurettes*, these being small tablets an inch long, a half an inch wide, and an eighth of an inch thick, weighing 100 grammes 30 grammes of which is mercury and 70 grammes cacao butter. I am inclined to hold that students should be taught how these may be made, in order that they may be able to cherish the art of pharmacy, and prove to the medical profession that they are competent and deserving of confidence.

But the question of the hour is, What is the most efficient method for ascertaining the amount of knowledge a student has absorbed? To this I will answer, Let the American Conference of Pharmaceutical Faculties appoint a committee on graduation, this committee to construct methods and rating values to answer for use by all its members, the examination and rating as constructed by this committee to be revised annually. And then if over 25 per cent. of those who are graduated under such a method, do not know how to properly compound the following prescriptions, then I will say that the method is not worth—well, is not a good one, and it should be improved.

[The prescriptions referred to are those used in the "practical examination," given on pages 368 and 369.]

Art requires much time and close application for its accomplishment. An artist will spend many months in painting a picture, beautiful and perfect to him; but an expert will at a glance discover the imperfection. And similarly

a graduate in pharmacy may spend years in gaining experience, and months at a college, perfecting the picture of a competent pharmacist, when along comes the pharmacy board and in almost a glance discovers that the fundamental principles have not been absorbed by the student, or if absorbed have not been put to practical use when required.

When the physician prescribes ten 3-grain Blaud's pills, he assumes that the pharmacist has learned how to prepare them properly. When concentrated hydrochloric acid is prescribed in a fluid mixture with potassium chlorate, then it is the pharmacist's opportunity to show that he has learned the fundamental principles of chemistry and of pharmacy. I fail to see the validity of such excuses as self-hypnotism, fright, nervousness, etc.: these affections come mostly to the incompetent who know their own shortcomings, or to those who lack self-confidence. Self-confidence is attainable, and it is up to the schools to render their graduates confident in the knowledge they have.

LOUIS EMANUEL.

Next below are given copies of the papers presented to the candidates for examination, including preliminary instructions, questions requiring written answers, and prescriptions; etc., to test the ability of the candidate in other directions, with the candidates' answers and ratings:

Take Notice.

"Close observation in all things and a thoroughness of your work is the price of success."

TO THE APPLICANT FOR EXAMINATION:

Please read the following rules for this examination, and be governed thereby during the time you are engaged with your work.

(1) In order to be eligible as an applicant for examination and registration as a pharmacist, you must have had not less than four years' practical experience in the business of retailing, compounding, or dispensing of drugs, chemicals and poisons, and of compounding of physician's prescriptions, and be a graduate of a reputable college of pharmacy; and be not less than twenty-one (21) years old.

(2) Your EXAMINATION NUMBER will be found printed at the top of the accompanying question sheet. On the answer sheets herewith attached will be found a line on which each applicant is required to enter the examination number. *Said numbering must not be neglected.* Write your number on each of the sheets now and you will be sure not to forget to do it.

(3) The questions are lettered from A to Z. The answer sheets are lettered from A to Z. The answer to question A can only be written on the corresponding answer sheet A. You may write on BOTH SIDES if necessary. Question B answers on answer sheet B and this system MUST be followed in answering all the questions. *Using these answer sheets in any other manner will make your examination unsatisfactory.*

(4) When you have completed your work arrange your answer sheets in ALPHABETICAL order from A to Z and, together with the question sheet, place them in the hands of the person having charge of your room.

(5) Copying from books or notes, or from the written work of any other candidate in the room, or giving or receiving information in any manner whatsoever during the examination will make BOTH persons liable to rejection, without further notice by the examiners.

(6) Candidates are not permitted to leave the examination room except in case of necessity, when permission must be obtained, and in that event their absence must be as brief as possible; during absence from the room the question sheet and answer papers must be left on the desk. Smoking during the examination is not permitted.

BY ORDER OF THE BOARD.

The principal question sheet was headed as follows:

THE QUESTION SHEET OF

THE STATE PHARMACEUTICAL EXAMINING BOARD OF PENNSYLVANIA

FOR REGISTERED PHARMACIST CERTIFICATE.

Candidate's Name.....
Address
Your Examination Number is.....(Put this number on every sheet of paper you write).

The Eighty-Eighth Examination.

Write your name and address at the top of this paper. Write the answers to each subject on a separate piece of paper, and put your examination number on each. Number or letter each answer to correspond with the number or letter preceding each separate question. Books or written memoranda are not allowed; nor is any intercourse whatever between the candidates permitted. Arrange your answer papers in alphabetical order from A to Z.

This question sheet must be handed in along with your answer papers.

There were twenty-five questions (one for each letter in the alphabet except J), and each question was divided into several parts, designated by figures. To each subdivision the examiners attached a certain weight (not revealed to the candidate) for use in grading the answers. The total weight of the entire twenty-five questions was 250, so that a candidate who answered all correctly would be graded 250, equal to 100 per cent. For each question missed by a candidate, a deduction of the weight of that question was made, with a corresponding falling off in his percentage. The questions (printed in italics) follow, their weights being indicated. The answers of each of three candidates, with the rating, expressed as "weight," given to such answers by the examiners, also follow. For purposes of identification, the three candidates are spoken of as "Smith," "Jones" and "Brown." "Smith" received the degree of doctor of pharmacy from the Philadelphia College of Pharmacy in 1906. Whether he waited five years after his graduation before applying for board license, or whether he has applied before and failed, as seems more probable, is not stated. "Jones" received his diploma as a graduate of the Pittsburg College of Pharmacy in 1907. "Brown" is a graduate of the department of pharmacy of the Medico-Chirurgical College, class of '10.

Question A.

1. Define specific gravity. (Weight 1.)

Smith did not attempt any of question A.

Jones: Specific Gravity is the comparative weight of substances as compared with the standard. Water is taken as the standard. (Weight 1.)

Brown: Specific gravity is the process of taking weight of any liquid.

2. If one liter of sulphuric acid weighs 1820 grammes what will its specific gravity be? (Weight 1.)

Jones: $1820 \div 1000 = 1.82$. Sp. Gr. of Sulphuric Acid. (Weight 1.)

Brown did not attempt any more of question A.

3. How many liters are contained in 4550 grammes of sulphuric acid? (Weight 1.)

Jones: $4550 \div 1.82 = 2500$ CC. of Sulphuric Acid. (Weight 1.)

4. If a cubic centimeter of a liquid weighs .716 grammes what will its specific gravity be? (Weight 1.)

Jones: $.716 \div 1 = .716$ Sp. Gr. of Liquid. (Weight 1.)

5. What will ten grammes of this liquid measure? (Weight 1.)

Jones: $10 \div .716 = 14$ CC. Liquid measures.

6. Demonstrate the number of minims contained in a cubic centimeter. (Weight 1.)

Jones: $60 \text{ M} = 1 \text{ dr.}; 1 \text{ dr.} = 3.7 \text{ CC.}; 60 \div 3.7 = 16.23$ Min in 1 CC. (Weight 1.)

7. Demonstrate the weight of one minim of water. (Weight 1.)

Jones: $455.7 \text{ Gr.} = \text{Weight of 1 ounce of Water. } 455.7 \div 480 = .95 \text{ gr.}$

8. State why a bushel of wheat weighs 60 pounds, and a bushel of oats only 30 pounds. (Weight 1.)

Jones did not attempt this.

9. How many bushels are contained in 150 pounds of wheat? (Weight 1.)

Jones: $2\frac{1}{2}$ Bushels. (Weight 1.)

10. Is there a difference in the weight of a pound of cotton and a pound of lead? (Weight 1.)

Jones: There is no difference in the weight. (Weight 1.)

Brown: Take my Strychnine Sulphate rub it together in mortar with the Quinine Sulphate add my Reduced Iron and Lastly my Extract of Belladonnae. The excess dose of the Strychnine Sulphate, The Extract Belladonna, The Acid Arseniosi.

Total weight of question D, 15; Smith made 12; Jones, 8; Brown, 7.

Question E.

1. What official drug is the result of a sting of an insect? (Weight 1.)

Smith: Powdered Nut Gall. (Weight 1.)

Jones: Nutgalls. Gallae. (Weight 1.)

Brown did not attempt any of Question E.

2. Name an official drug consisting of the whole insect. (Weight 1.)

Smith: Powdered cantharidies. (Weight 1.)

Jones: Cantharis vesicatoria. (Weight 1.)

3. What two official drugs consist of substances secreted by the digestive organs of Mammalia? (Weight 1.)

Smith: Pepsin. (Weight ½.)

Jones: (a) Pepsinum. (b) Pancreatinum. (Weight 1.)

4. What official saccharine substance is obtained from a member of the class Mammalia? (Weight 1.)

Smith: Sugar Milk. (Weight 1.)

Jones: Saccharum Lactis. (Weight 1.)

5. What saccharine substance is secreted by a member of the class Insecta? (Weight 1.)

Smith: Honey. (Weight 1.)

Jones: Mel. (Weight 1.)

Total weight of question E, 5; Smith made 4½; Jones, 5; Brown, 0.

Question F.

Give the official Latin title and botanical source of each of the following: (1) Dandelion. (2) Burdock. (3) Lobelia. (4) Bloodroot. (5) Witchazel Bark. (6) Boneset. (7) Saw Palmetto. (8) Indian Hemp. (9) Sweet Flag. (10) Marigold. (Weight of each subdivision, 1.)

Smith: (1) Dandelion—Taraxicum—United States. (2) Burdock Root. (3) Lobelia. (4) Bloodroot. (5) Witchazel Bark—Hamamelis—United States. (6) Boneset—Eupatorium (7) Saw Palmetto. (8) Indian Hemp. Cannabis Indica. Canada. (9) Sweet Flag. Calamus. (10) Marigold. (Weight 3.)

Jones: (1) Taraxacum—Taraxacum officinale. (2) Frangula—Rhamnus frangula. (3) Lobelia—Lobelia inflata. (4) Sanguinaria—Sanguinaria canadensis. (5) Hamamelis Cortex—Hamamelis Virginiana. (6) (7) Sabal—Seruna serulata. (8) Cannabis Indica—Cannabis sativa. (9) Calamus—Acorus Calamus. (10) (Weight 7.)

Brown did not attempt this.

Total weight of question F, 10; Smith made 3 (½ each on 1, 3, 5, 6, 8, and 9); Jones, 7; Brown, 0.

Question G.

Give the usual adult dose of the following: (1) Arsenic Trioxide. (2) Apomorphine Hydrochloride. (3) Silver Nitrate. (4) Atropine Sulphate. (5) Elaterin. (6) Elaterium. (7) Diluted Hydrocyanic Acid. (8) Morphine Sulphate. (9) Hyoscine Hydrobromide. (10) Strychnine Nitrate. (Weight of each subdivision ½.)

Smith: (1) grs. 1/16. (2) grs. ½. (3) grs. ¼. (4) grs. 1/150 to grs. 1/250. (5) grs. ½—grs. i. (6) grs. ⅛—grs. ¼. (7) M ½—M ½. (8) grs. ½—grs. i. (9) grs. 1/50—grs. 1/150. (10) grs. 1/60—grs. 1/32.

Jones: (1) 1/30 gr. (2) 1/10 gr. (3) ¼ gr. (4) 1/160 gr. (5) 1/10 gr. (6) (7) 1½ min. (8) ¼ gr. (9) 1/128 gr. (10) 1/64 gr.

Brown: (1) ¼ gr. (2) ½ to .1 gr. (3) ½ to 1 gr. (4) 1—2 gr. (5) (6) (7) 5—10 M. (8) 1/30. (9) ¼ gr. (10) ¼—½ gr.

Total weight of question G, 15 (1½ for each of the ten subdivisions); Smith made 8 (perfect score on 3, 4, 7, 9 and 10, and ½ on 6); Jones, 13 (perfect score on all but 2 and 6; 2 he made 1, and on 6 he made 0); Brown, 1 (½ on 3 and ½ on 8).

Question H.

Give the definition of the following terms applied to the action of certain drugs, and mention one drug belonging to each class: (1) Analgesic. (2) Antispasmodic. (3) Mydriatic. (4) Myotic. (5) Sternutatory. (6) Diaphoretic. (7) Galactagogue. (8) Pustulant. (Weight of each subdivision, 1.)

Smith: (1) Analgesic. One that reduces pain. (2) An-

tispasmodic. One that just opposite. One that stops spasmodic attacks. (3) Mydriatic. One that enlarges the pupil of the eyes. (4) Myotic. One that decreases or makes the pupil smaller. (5) Sternutatory. (6) Diaphoretic. One that reduces. (7) Galactagogue. One that produces the milk or makes Milk. (8) Pustulant.

Jones: (1) (2) An anti-spasmodic is a drug that allays spasms. Ex. Valerian Asafoetida. (3) Mydriatic is a drug that dilates the pupil of the eye. Ex. Belladonna. (4) Myotic is a drug that contracts the pupil of the eye. Jaborandi. (5) Sternutatory is a drug that causes sneezing. Soap Bark. (6) Diaphoretic is a drug that produces perspiration. Ipecac. (7) Galactagogue is a drug producing the secretion of milk.

Brown: (1) To sooth—camphor. (2) To quite a person—strychnine sulphate. (3) To enlarge pupil of eye—atropine Sulphate. (4) To decrease dilation of eye—apomorphine Hydrochloride. (5) To produce sneezing—soap bark.

Total weight of question H, 10; Smith made 3½ (1 each on 3 and 4, and ½ each on 1, 2 and 7; Jones, 5 (1 each on 2, 3, 5, and 6, and ½ each on 4 and 7); Brown, 2½ (1 each on 3 and 5, and ½ on 4).

Question I.

ACID HYDROCYANICUM DILUTUM.

Silver Cyanide..... 6.00 Gm.

Diluted Hydrochloric Acid..... 15.54 Cc.

Distilled Water..... 44.10 Cc.

(1) Construct an equation showing the production of hydrocyanic acid in the above formula. (Weight 4.)

Smith did not attempt any of question I.

Jones: $\text{HCl} + \text{Ag. Cn} = \text{Ag Cl} + \text{HCn.}$ (Weight 4.)

Brown. $\text{Ag Cn}_2 + \text{HCl} + \text{H}_2\text{O} = \text{AgNO}_2 + \text{HCN} + \text{Cl}$ (Weight 3.)

2. Show by chemical calculation the weight in grammes of absolute hydrocyanic acid that would be produced from this formula. (Atomic weights: Ag = 107.12, C = 11.91, N = 13.93, Cl = 35.18, H = 1.) (Weight 4.)

Jones did not attempt 2, 3, 4 or 5.

Brown did not attempt 2, 3, or 4.

3. Diluted hydrochloric acid contains ten per cent., by weight, of absolute acid, and has the specific gravity, 1.049: Show why exactly 15.54 Cc. of diluted hydrochloric acid is required. (Weight 4.)

4. Assuming that the diluted acid produced by the above formula weighs 60 Gm., demonstrate the per cent., by weight, of absolute hydrocyanic acid that it would contain. (Weight 2.)

5. How does the U. S. P. direct this acid to be kept? (Weight 1.)

Brown: Dark glass stoppered bottles away from light and heat. (Weight 1.)

6. What change takes place when this acid is improperly kept or when it is too old? (Weight 1.)

Jones: It should be kept in amber colored bottles with glass stoppers. It should be kept in a dark place. (Weight 1.)

Brown: Loses its strength & Color. (Weight 1.)

Total weight of question I, 16; Smith made 0; Jones, 5; Brown, 5.

Question K.

1. Give the botanical name of the plant yielding Jalap. (Weight ½.)

Smith: The Root Jalape Tuberosa.

Jones: Exogenium purga. (Weight ½.)

Brown did not attempt this.

2. What is the character of the drug, state also the character of the plant itself. (Weight ½.)

Smith: It is a tuberous root. (Weight ½.)

Jones did not attempt this.

Brown: It has the shape of an egg, has ridges in it and very dark in appearances. (Weight ½.)

3. In what family is the plant included? (Weight ½.)

Smith: In the family Convolvulaceae. (Weight ½.)

Jones: Convolvulaceae. (Weight ½.)

Brown: Solanaceae.

4. Name the official preparations of Jalap. (Weight ½.)

Smith: Pulvis-Jalapae Comp. (Weight ½.)

Jones: Compound Powder of Jalap. Resin of Jalap. (Weight ½.)

Brown: Tincture. (Weight ½.)

5. What menstruum is necessary to extract the medical properties of this drug? (Weight ½.)

Smith: Dilute Acetic Acid.

Jones: Alcohol. (Weight ½.)

Brown: Alcohol. (Weight $\frac{1}{2}$.)

6. Give medicinal properties and dose of powdered Jalap. (Weight $\frac{1}{2}$.)

Smith: It has action on the bowels. And a strong purgative. Dose grs. $\frac{1}{2}$ to grs. ii.

Jones: Diuretic, Hydrogogue Cathartic $7\frac{1}{2}$ grs. (Weight $\frac{1}{2}$.)

Brown: (6) Purgative. (7) $\frac{1}{2}$ gr.

Total weight of question K, 3; Smith made $1\frac{1}{2}$; Jones, $2\frac{1}{2}$; Brown, $1\frac{1}{2}$.

Question L.

Tinct opii M LXXX
... catechu 3vi
Bismuthi Subnit 3ij
Mist Cretae ad 3ii
M. Sig. Shake well take half table
spoonful in water, 1. R. S.

1. Give the English name and quantity that would be contained in each dose. (Weight 4.)

Smith: Laudanum, $13\frac{1}{4}$ minims; Tr. Catechu 3i; Bismuth Subnitrate grs. XV; Mist Cretae 3ii minims XL (Chalk Mixture).

Jones: Tincture of Opium 10 drops. (b) Tincture Catechu 45 min. (c) Bismuth Subnitrate $11\frac{1}{4}$ gr. (d) Chalk Mixture 1 dr. (Weight 2.)

Brown: Tincture opium M LXXX = 10 M; Tincture Catechu f3 vi = 12 M; Bismuth Subnitrate 3iss = gr $8\frac{3}{4}$; Mist Cretae ad 3ii = M. Sig. Shake well take half tablespoonful in water. (Weight 2.)

2. What official products would you use in compounding it? (Weight 2.)

Smith: Laudanum—Tincture Catechu—Bismuth Subnitrate—Chalk Mixture. (Weight 2.)

Jones: Tincture Opium. Tr. Gambir. Bismuth Subnitrate. Chalk Mixture. (Weight 2.)

Brown: The 1st ingredient I would dispense Laudanum for it & The rest as per prescription.

3. How much would it measure? (Weight 2.)

Smith: It would measure 3 ozs.

Jones: 33.

Brown passed it by.

4. How much granulated opium would be represented in each dose of this prescription? (Weight 3.)

Smith: Half to $\frac{1}{4}$ gr. Granulated Opium would be contained in each dose of this prescription.

Jones: $1/25$ gr.

Brown gave it up.

5. Why does the prescriber direct the use of a "shake well" label? (Weight 2.)

Smith: Because the Bismuth Subnitrate would leave a precipitate. And is very insoluble. And the Chalk Mixture makes a incompatible mixture also. And the Tincture Catechu has a tendency to be incompatible. (Weight 1.)

Jones: The shake well label is used because the Bismuth Subnitrate and Acacia are insoluble. (Weight 2.)

Brown: On account of the Mistura Cretae & Bismuth Subnitrate.

6. Name three official salts of bismuth insoluble in water. (Weight 1.)

Smith: Bismuth Iodide—Bismuth Salicylate—Bismuth Subcarbonate. (Weight 1.)

Jones: Bismuth Subcarbonate (b) Bismuth Subgallate (c) Bismuth Subnitrate. (Weight 1.)

Brown: Bismuth Subnitrate; Bismuth Subgallate; Bismuth Salicylate. (Weight 1.)

7. Of what is the last ingredient in the prescription composed? (Weight 1.)

Smith: Prepared Chalk, Sugar, Pulvis Acacia, Water Distill and Cinnamon Water. (Weight 1.)

Jones: Acacia, Sugar, Chalk, Water, Cinnamon water. (Weight 1.)

Brown: Chalk Powder; Sugar Milk; Acacia.

7a. Why is acacia used in it? (Weight 1.)

Smith: Acacia is used in it to keep the mixture more uniform and stable, and to hold the substances in suspension and more palatable. (Weight 1.)

Jones: Acacia is used to suspend the chalk in chalk mixture. (Weight 1.)

Brown: To hold Sugar Milk & Chalk together.

8. What is "Native Calcium Carbonate, freed from most impurities by elutriation"? (Weight 1.)

Smith and Brown seemed to have overlooked this one.

Jones: Purified Talc.

Total weight of question L, 17; Smith made 6; Jones, 9; Brown, 3.

Question M.

1. Give directions for preparing this prescription, mentioning all details which should be regarded in making it suitable for use in the eye. (Weight 5.) [For the prescription, see below.]

Smith: First all graduates and glass rods for making this Eye Prescription should be boiled or Sterilized—Dissolve the Zinc Sulphate in sufficient water also the Boracic Acid. Add the Sodii Chloride to the Boracic Acid Solution. Run the two solutions through cotton to get all foreign principles out. Then add camphor water to mucilage Sassafras. Mix two solutions. And then distilled water to make the prescription measure oz. two. (Weight 5.)

Jones: The boric acid should first be dissolved by a small quantity of warm water, to this should be added the Zinc Sulphate and Sodium Chloride, dissolved in water. The Mucilage of Sassafras and Camphor Water are then added successively with enough distilled water to make two ounces. Any foreign or insoluble substances should

7. Zinc Sulphate 3ii
Acidi Boracis aa 3ss
Sodii Chlorid
Mucilagis Sassafras 4ss 3ii
Aque Camphorat 3i
Aqua Distilat qd 3ii
M. Sig. - Eye solution
7/19/11
Dunnellan

be removed by filtration, and only perfectly clear solution dispensed. (Weight 5.)

Brown: Take your Zinc Sulphate rub it up in the mortar to a fine powder—Take some water & dissolve your Zinc Sulphate place this into your bottle—Take your Boracic Acid & Sodium Chloride rub together with Aque Camphor & your mucilage place into the bottle ad your water & strain before handing to customer. (Weight 4.)

2. How much would it measure? (Weight 1.)

Smith: It will measure two ounces. (Weight 1.)

Jones: 2 3. (Weight 1.)

Brown: 3 ounces.

3. What does "aa" mean and to what does it apply? (Weight 1.)

Smith: AA means each. To Boracic Acid. (Weight 1.)

Jones: Aa means of each. It applies to Sodium Chloride and Boric Acid. (Weight 1.)

Brown: aa means of each and it applies to the Sodium Chloride, & Boracic Acid. (Weight 1.)

4. Write such a label as is desired by the prescriber. (Weight 1.)

Smith:

Zinc Sulphate grs ii
 Acid Boracic
 Sodii Chloride aa grs. x
 Mucilage Sassafras Med 3 ii
 Aquae Camphorae f 3 ii
 Aquae Destil qs ad f 3 ii

M et Sig Eye Lotion. Use freely in eyes as directed by Dr. Donnelly. (Weight 1.)

Jones: Eye Solution.

Put the patient's name on the Label—also the word "eye Lotion" & formula. (Weight ½.)

Brown: Put the patient's name on the label—also the word "eye lotion" & formula. (Weight ½.)

5. What effect does dissolving chemical salts in camphor water have upon the latter? (Weight 2.)

Smith: It throws the camphor out in Solution. (Weight 2.)

Jones: Chemicals dissolved in Camphor water renders the camphor less soluble. (Weight 1.)

Brown: The alcohol taking up the Salts.

Total weight of question M, 10; Smith made 10; Jones, 8; Brown, 5½.

Question N.

1. What is Calx? (Weight 2.)

Smith: Calx—Mean Lime. (Weight 2.)

Jones: Calcium Oxide or Lime. (Weight 2.)

Brown: Calcium Chloride.

2. How does the U. S. P. direct that it should be prepared? (Weight 1.)

Smith skipped this.

Jones: It should be prepared by calcining marble or the purest varieties of native Calcium Carbonate. (Weight 1.)

Brown: Chlorine on calcium chloride.

3. How should it be kept, and state why? (Weight 2.)

Smith: It should be kept in Air tight containers. (Weight 2.)

Jones: It should be kept in tightly stoppered bottles. It absorbs CO₂ which converts into Calcium Carbonate. (Weight 2.)

Brown: Glass stoppered bottle on account of its strength.

4. What official preparations are made from it? (Weight 1.)

Smith: Lime Water. (Weight ½.)

Jones: Chloride of Lime—Lime Water. (Weight ½.)

Brown did not try this.

5. Chemically, what is marble? (Weight 1.)

Smith: Marble is a Calcium Carbonate. (Weight 1.)

Jones: Calcium Carbonate. (Weight 1.)

Brown: Calcium Chloride. (Weight 1.)

6. What are oyster shells, chemically? (Weight 1.)

Smith: Oyster shells are a carbonate of lime. (Weight 1.)

Jones: Calcium Carbonate. (Weight 1.)

Brown: Calcium Chloride. (Weight 1.)

7. What effect has prolonged heat on oyster shells? (Weight 2.)

Smith: Makes them crumble.

Jones skipped this.

Brown: Crack & Crumble.

Total weight of question N, 10; Smith made 6½; Jones, 7½; Brown, 2.

Question O.

Translate the following: (1) Bis in d. (2) Coch. infant. (3) Coch. parv. (4) Coch. ampl. (5) Coch. mag. (6) Pone. (7) et. (8) cum. (9) P. r. n. (10) Scat. (Weight of each subdivision 1.)

Smith: Bis-in. d.— By day—two times daily. (Weight 1.) (He did not attempt any of the others.)

Jones: (1) Twice a day. (2) (3) A teaspoonful.

(4) A desertspoonful. (5) A tablespoonful. (6) Behind.

(7) And. (8) With. (9) According to circumstances.

(10) A box.

Brown: (1) Twice a day. (7) And. (9) before meals. (Others not attempted.)

Total weight of question O, 10 (1 for each subdivision); Smith made 1; Jones, 9; Brown, 3.

Question P.

1. What is sterilization? (Weight 1½.)

Smith: Sterilization. Means to boil free from all foreign principles, and all germs. (Weight 1½.)

Jones: Sterilization is heating to a high temperature to kill the microbes and germs contained in a substance. (Weight 1.)

Brown: Sterilization is the process of killing germs with aid of water. (Weight 1.)

2. What is pasteurization? (Weight 1½.)

Smith: Pasteurization. Means to boil and get rid of all germs that may attack a human body. (Weight 1.)

Jones: Pasteurization is a process of killing the microbes and germs contained in milk. (Weight 1½.)

Brown: Pasteurization is the process of killing germs with aid of steam. (Weight ½.)

3. How would you prepare a five per cent. solution of camphor in olive oil for hypodermic use? (Weight 2.)

Smith did not attempt 3, 4, or 5.

Jones: The olive oil should be heated to high temperature and then rubbed with Camphor in a warm mortar until the Camphor is dissolved.

Brown: Take my Camphor & powder up with a little alcohol & then gradually add my Olive Oil to it until it becomes all triturated do this in a glass mortar.

4. Should the oil be first sterilized for this purpose, if so, how would you do it? (Weight 1.)

Jones: The oil should be sterilized. Olive oil is sterilized by heating on a water bath until it boils. It is then removed and allowed to cool and then placed into container. (Weight ½.)

Brown: Yes—To do so place the oil into a bottle over a water bath. (Weight 1.)

5. If you have a prescription for sterilized petrolatum what would you dispense? (Weight 2.)

Jones offered no answer to this or to the next question.

Brown: I would dispense petrolatum which is in sealed bottles. (Weight 2.)

6. Why should the pharmacist be careful to cover up all vessels containing ointments? (Weight 2.)

Smith: Because there are so many germs in the air. That coming in contact with Ointment would form a poisonous germs and when coming in contact with an open cut may form Tetanus or other disease. (Weight 2.)

Brown: To prevent decomposition & exposure to air & light. (Weight 1.)

Total weight of question P, 10; made by Smith, 4½; by Jones, 3; by Brown, 5½.

Question Q.

R
 Tinct. Nucis Vom. ʒiiss
 Tinct. Cinchonae Comp ʒiiss
 Acid. Phos. dil ʒvi
 Tinct. Ferri Chlor ʒiiss
 Spt. Vin. Gallici ad ʒvi
 M. a dessertspoonful
 in water before meals
 5-24-93 Dr. Hill

1. In what system of weights is this written? (Weight 3.)

Smith: It is written in Old form weights or drachms. (Weight 3.)

Jones: Troy or Apothecaries. (Weight 3.)

Brown: Apothecaries. (Weight 3.)

2. How does it differ from that commonly employed for prescriptions of this character? (Weight 3.)

Smith: Prescriptions of this character the weights are written in Liquid form. Where in this Prescription it is written in drachms or solid form. (Weight 3.)

Jones did not offer anything in reply to this.

Brown: None.

3. Would you compound it by weight or measure? (Give reason for your answer.) (Weight 3.)

Smith: I would compound it by measure. (Because first it would measure more by weight—Second the Physician has forgot to write it correctly.) (Weight 3.)

Jones: Weight.

Brown: by measure as it calls for it—By weight you would have to weigh your container (The Bottle) Then place weights required. (Weight $2\frac{1}{2}$.)

4. Give English name and quantity of each ingredient that would be contained in each dose, if compounded by Apothecaries Fluid Measure. (Weight 5.)

Smith:

Tincture Nux Vomica	1 dose.
Tincture Cinchona Compound	Minims 3.
Acid Phosphoric Dilutum	3 ss.
Tincture Chloride Iron	Minims viii
Spirit Vini Gallici (Brandy)	min iv
	oz i
	(Weight $2\frac{1}{2}$.)

Jones:

Tincture Nux Vomica	3 min.
Tincture Cinchona Compound	34 min.
Dilute Phosphoric Acid	9 min.
Tincture Chloride Iron	4 min.
Brandy	1 dr. 9 min.
	(Weight $2\frac{1}{2}$.)

Brown did not attempt this.

5. What does "ad" mean in this prescription? (Weight 1.)

Smith: Ad means. To measure just exactly the quantity the physician wants. Or the addition of the liquid.

Jones did not undertake to say what "ad" means.

Brown: ad enough of the Brandy to make required amount which is six ounces. (Weight 1.)

Total weight of question Q, 15; Smith made $8\frac{1}{2}$ [?]. Jones, $5\frac{1}{2}$; Brown, $6\frac{1}{2}$.

Question R.

What are the following: (1) English salt. (2) Bitter salt. (3) French salt. (4) Salt of tartar. (5) Salt of Lemon. (6) Sour Salt. (7) Table salt. (8) Glauber salt. (9) Epsom salt. (10) Preston's salt. (Weight of each subdivision 1.)

Smith attempted only the following: (4) Potassium Carbonate. (5) Oxalic Acid. (6) Hydrochloric Acid. (7) Sodium Chloride. (8) Sodium Sulphate. (9) Magnesium Sulphate.

Jones: (1) Epsom Salt. Magnesium Sulphate. (2) Epsom Salt. Magnesium Sulphate. (3) (4) Potassium Carbonate. (5) Citric Acid. (6) Citric Acid. (7) Sodium Chloride. (8) Sodium Sulphate. (9) Magnesium Sulphate.

Brown: (1) Epsom Salts. (2) Epsom Salts. (3) Epsom Salts. (4) Potassium Carbonate. (5) Oxalic Acid. (6) Rochelle Salt. (7) Sodium Chloride. (8) Sodium Sulphate. (9) Magnesium Sulphate. (10) Epsom Salt.

Total weight of question R, 10; Smith made 4 (1 each on 4, 7, 8, and 9); Jones, 8 (all except 3 and 10); Brown, 7 (all except 3, 6 and 10).

Question S.

1. Name the source of Sodium Nitrate. (Weight $\frac{1}{2}$.)

Smith did not try any of question S.

Jones: Manure.

Brown: Found in Iron ores & Rocks.

2. Describe it. (Weight 1.)

Jones did not attempt this.

Brown: Its a whitish, granular powder. (Weight $\frac{1}{2}$.)

3. Give its medicinal properties and dose. (Weight 1.)

Jones: Diuretic 15 grs. (Weight $\frac{1}{2}$.)

Brown: 2 gr doses—nervousness.

4. How is Sodium Nitrite prepared? (Weight 1.)

Jones did not offer any answer to 4, 5, or 6.

Brown: Action of nitric acid on sodium.

5. The U. S. P. directs that the official salt should contain at least 90 per cent. of pure sodium nitrite; what does the other 10 per cent. consist of? (Weight 1.)

Brown: Sodium Nitrite a very white powder granular.

6. Describe Sodium Nitrite. (Weight 1.)

No answer to this, unless Brown's answer to 5 was intended for 6.

7. What effect has light and air upon it? (Weight 1.)

Jones: Sodium Nitrite absorbs moisture from the air and liquifies. (Weight 1.)

Brown: decomposes. (Weight $\frac{1}{2}$.)

8. How would you dispense it in capsules? (Weight 1.)

Jones: Sodium Nitrite may be dispensed in capsules by mixing it with Althea, or Tragacanth. (Weight 1.)

Brown: Make a mass form.

9. What effect has an acid upon it in solution? (Weight 1.)

Jones: An acid decomposes Sodium Nitrate in solution. (Weight $\frac{1}{2}$.)

Brown: Turn it to a darkish yellowish color. (Weight $\frac{1}{2}$.)

10. What are its medicinal properties and dose? (Weight $\frac{1}{2}$.)

Jones: Diuretic 15 grs.

Brown: No answer.

Total weight of question S, 10; Smith made 0; Jones, 3; Brown, $1\frac{1}{2}$.

Question T.

1. Give the official Latin name for licorice root. (Weight $\frac{1}{2}$.)

Smith: Glycyrrhiza. Radix. (Weight $\frac{1}{2}$.)

Jones: Glycyrrhizae Radix. (Weight $\frac{1}{2}$.)

Brown attempted only 4 and 9 of question T.

2. Name the botanical source of Spanish licorice root. (Weight $\frac{1}{2}$.)

Smith offered no answer to 2 and 3.

Jones: Glycyrrhizae glabra. (Weight $\frac{1}{2}$.)

3. Name the botanical source of Russian licorice root. (Weight $\frac{1}{2}$.)

Jones: Glycyrrhizae glandulifera. (Weight $\frac{1}{2}$.)

4. Give the medicinal properties of licorice. (Weight 1.)

Smith: Use in colds and coughs. (Weight $\frac{1}{2}$.)

Jones: Expectorant, demulcent. (Weight 1.)

Brown: Its used as an expectorant. (Weight 1.)

5. How is ammoniated Glycyrrhizin prepared? (Weight 1.)

Smith: By addition of Ammonia Water. (Weight $\frac{1}{2}$.) Jones turned in blank spaces on his answer sheet opposite 5, 6, 7, and 8.

6. How is fluidextract of licorice made? (Weight 2.)

Smith: By evaporating the root down and passing a Menstruum through it.

7. How is the official pure extract of liquorice made? (Weight 2.)

Smith did not try 7 and 8.

8. How is Purified Extract of Liquorice, N. F., made? (Weight $\frac{1}{2}$.)

This seems to have nonplussed all three.

9. Which of these should be used in making Brown Mixture? (Weight 2.)

Smith: Pure extract of licorice is used. (Weight 2.)

Jones: Extractum Glycyrrhizae Purum. (Weight 2.)

Brown: Purified extract of Licorice. (Weight 2.)

Total weight of question T, 10; Smith made $3\frac{1}{2}$; Jones, $4\frac{1}{2}$; Brown, 3.

Question U.

1. Give the official name of Thymol Iodide. (Weight 1.)

Smith attempted only 2 and 5 under this head.

Jones: Thymolis Iodidum. (Weight 1.)

Brown: Thymole Iodidi. (Weight 1.)

2. Under what trade name is it known? (Weight 1.)

Smith: Aristol. (Weight 1.)

Jones: Aristol. (Weight 1.)

Brown: Aristol. (Weight 1.)

3. What percentage of iodine should it contain? (Weight 1.)

Jones: 96%. (Weight 1.)

Brown: 2 %.

4. How would you detect rosin as an adulterant in it? (Weight 1.)

Jones gave it up.

Brown: Hydrochloric acid gives you a deep yellow color.

5. How would you detect the presence of tannin in it? (Weight 1.)

Smith: By a solution of iron. (Weight 1.)

Jones: By treating with Tincture Ferric Chloride. (Weight 1.)

Brown: Nitric Acid gives you Brown Color.

6. How would you detect sesquioxide of iron in it? (Weight 1.)

This stumped all three.

7. Name one or more of its best solvents. (Weight 1.)

Jones: Sulphur Dioxide.

Brown: Alcohol, Chloroform. (Weight 1.)

Total weight of question U, 7; Smith made 2; Jones, 4; Brown, 3.

Question V.

1. What is Tar? (Weight 1.)

Smith: Tar is a very heavy Black substance with a disagreeable odor.

Jones: A product obtained by the destructive distillation of the wood of Pinus Palustris. (Weight 1.)

Brown: A drug obtained by destructive distillation of wood.

2. *Give its official Latin title?* (Weight 1.)

Smith: Picis Liquidum. (Weight ½.)

Jones: Pix Liquida. (Weight 1.)

Brown: Picis Liquide. (Weight ½.)

3. *How is it obtained?* (Weight 1.)

Smith: Made from distillation of coal.

Jones: Obtained by destructive distillation.

Brown: used as an expectorant. (Weight ½.)

4. *What are its medical properties?* (Weight 1.)

Smith: For Coughs and Colds, and Plasters.

Jones: Diuretic, Diaphoretic, stimulant. (Weight 1.)

Brown: distillation of wood. [Brown seems to have a habit of getting his questions and answers mismatched. See question S, 5 and 6.]

5. *How is Oil of Tar obtained?* (Weight 1.)

Smith: By distillation of Crude tar. (Weight 1.)

Jones: Distillation. Obtained from Tar. (Weight 1.)

Brown: it will separate leaving the Tar on Top. (Weight ½.)

6. *Why should care be taken in not overheating Tar Ointment?* (Weight 2.)

Smith and Jones did not know and knew that they did not know.

Brown: it's a Tar product & obtained from the Tar.

7. *What is Oil of Cade and what is it obtained from?* (Weight 1.)

Smith gave it up.

Jones: A product of the dry distillation of the wood of *Juniperus oxycedrus*. (Weight 1.)

Brown—[See his answer to 6.]

Total weight of question V, 8; Smith made 1½; Jones, 5; Brown, 1½.

Question W.

1. *What is magnesium?* (Weight 1.)

Smith: Magnesium is a heavy metal. (Weight 1.)

Jones: Magnesium is an elementary substance. (Weight 1.)

Brown: its a chemical. (Weight ½.)

2. *What is magnesia?* (Weight 2.)

Smith: Magnesia is a light principle obtained from magnesium. (Weight ½.)

Jones did not attempt 2, 5 or 6.

Brown: its a drug.

3. *What is Magnesii Oxidum Ponderosum, U. S. P.?* (Weight 1.)

Smith: Heavy Magnesia. (Weight 1.)

Jones: Heavy Oxide of Magnesia. (Weight 1.)

Brown: Heavy Magnesia [naming a well-known brand]. (Weight 1.)

4. *How does it differ from Magnesii Oxidum, U. S. P.?* (Weight 1.)

Smith: It is not so light and flaky. (Weight 1.)

Jones: Differs in weight. (Weight 1.)

Brown: The Oxide is the light, the Magnesii Oxidum Ponderosum is the heavy. (Weight 1.)

5. *The U. S. P. directs that it should contain at least 96 per cent. of pure magnesium oxide; what, in your judgment, does the other 4 per cent. consist of?* (Weight 1.)

Smith and Jones skipped this.

Brown: Contains Calcined Magnesia.

6. *What is calcined magnesia?* (Weight 1.)

Smith: Light magnesia. (Weight 1.)

Brown: Magnesia Carbonate.

7. *State in detail how Solution of Magnesium Citrate is made in the store in which you are employed?* (Weight 1.)

Smith: Aqua Destill—is used Magnesium Carbonate Citric Acid—Let effervescence cease. Add Syrup Lemon. Water qs But put in of Potassium Bi Carbonate 40 grs Cork tightly and put on Ice. (Weight 1.)

Jones: 396 Gm. of Citric Acid and 180 Gm. of Magnesium Carbonate are placed in a container and to this is added 2880 C.C. of hot water. When the solution becomes cool it is divided into 12 equal parts. Then the Syr. of Citric Acid and Water is added. (Weight 1.)

Brown: I take my Magnesia Carbonate & my Citric Acid place into a suitable container add my water to it—Stand Aside until all is dissolved fill up to required amount—Then I take about ½ ounce Commercial Talcum place into my container Shake & Filter after filtering I take 24 Ounces of Syr. Citric Acid & place into my container Shake & Bottle. (Weight 1.)

8. *How much Magnesium Carbonate should be used for each bottle of this solution?* (Weight 1.)

Smith: Because it spoils or a fungi forms and becomes flakey. (Weight 1.)

Jones: 15 Gm. (Weight 1.)

Brown confessed his ignorance by ignorance.

9. *Why should it not be made in large quantities?* (Weight 1.)

Smith evidently intended his answer 8 for this question.

Jones: It does not keep. (Weight 1.)

Brown: it should always be made up Fresh.

Total weight of question W, 10; Smith made 6½; Jones, 6; Brown, 3½.

Question X.

1. *Name the plant yielding bitter orange peel.* (Weight ½.)

Smith turned in blank spaces for 1, 2, 3, 4, and 6.

Jones: Citrus Vulgaris. (Weight ½.)

Brown offered answers to only 5, 6, and 9.

2. *Name the plant yielding Sweet Orange Peel.* (Weight ½.)

Jones: Citrus Aurantium. (Weight ½.)

3. *Describe Bitter Orange Peel?* (Weight 1.)

No answer.

4. *Describe Sweet Orange Peel.* (Weight 1.)

No answer.

5. *In what preparation is Bitter Orange Peel used?* (Weight 1.)

Smith: In Tr. Gent. Comp. (Weight ½.)

Jones: Tr. Bitter Orange Peel. (Weight ½.)

Brown: Tincture.

6. *In what preparation is Sweet Orange Peel used?* (Weight 1.)

Jones: Tr. Sweet Orange Peel. (Weight 1.)

Brown: Syr. Aurantii. (Weight ½.)

7. *Which peel is obtained from the fresh ripe fruit?* (Weight 1.)

Smith: Sweet orange. (Weight 1.)

Jones: Sweet Orange Peel. (Weight 1.)

Brown let this go by.

8. *Which is obtained from the unripe fruit and what are its medical properties?* (Weight 1.)

Smith: Bitter Orange. (Weight ½.)

Jones: Bitter Orange Peel. M. P. refrigerant, stimulant, carminative. (Weight 1.)

9. *How is the official Syrup of Orange made?* (Weight 3.)

Smith: By letting the peel macerate in Alcohol so many days and taking off the tincture and making the syrup. From Granulated Sugar. (Weight 1.)

Jones: Syrup Orange is made from the Tincture Sweet Orange Peel and Syrup it is made by simple solution. (Weight 1.)

Brown: Citric Acid; Sugar; Magnesium Carbonate; Water. (Weight ½.)

Total weight of question X, 10; Smith made 3; Jones, 5½; Brown, 1.

Question Y.

1. *Why should arsenic trioxide be given after meals?* (Weight 1.)

Smith turned in answers to only 4, 5, 6, and 9.

Jones tried only 4, 5, 6, 9 and 10.

Brown: To give on an empty stomach might produce vomiting.

2. *Why does the administration of most organic acids render the urine alkaline?* (Weight 1.)

Brown: All organic acids turn urine alkaline.

3. *Why does the administration of benzoic acid make the urine acid?* (Weight 1.)

Brown: The benzoic acid it contains.

4. *Why is charcoal used as an antidote for poisoning by alkaloids?* (Weight 1.)

Smith: Because it renders them inert.

Jones: Charcoal combines with alkaloids rendering them insoluble. (Weight 1.)

Brown: It is a help in preventing the victim from dizziness, also the shivering and nervousness.

5. *Why is albumin a good antidote for poisoning by metallic salts?* (Weight 1.)

Smith: Because it takes up the metallic salts and renders them insoluble. (Weight 1.)

Jones: Albumin combines with metallic salts making them inactive and uninjurious. (Weight 1.)

Brown: Doesn't corrode the lining of the stomach. (Weight 1.)

6. *Why should an emetic be administered soon after giving albumin?* (Weight 1.)

Smith: To get it out of the stomach so that it will not change into another salt. (Weight 1.)

Jones: To remove the poisonous metallic salts. (Weight 1.)

Brown: to Produce Vomiting.

7. Why should an excess of albumin be avoided in poisoning by corrosive sublimate? (Weight 1.)

Brown: The antagonism with the corrosive sublimate.

8. Why is hydrastin specified "White alkaloid"? (Weight 1.)

Brown did not undertake to answer 8. or 9.

9. Why is Jamaica ginger coated with lime? (Weight 1.)

Smith: To keep insects away. (Weight 1.)

Jones: To preserve it and to protect it from insect bites. (Weight 1.)

10. Why does powdered mustard not give a blue color with iodine? (Weight 1.)

Jones: Powdered mustard does not give a blue color with iodine because it does not contain starch. (Weight 1.)

Brown: does not Contain Starch. (Weight 1.)

Total weight of question Y, 10; Smith made 3; Jones, 5; Brown 2.

Question Z.

1. What earthy salts enter into the composition of bone? (Weight ½.)

Neither Smith nor Brown tried any of question Z; Jones gave an answer to 1 only, as follows:

Calcium; Sodium, Magnesium. (Weight ½.)

2. What is the central and what is the peripheral nervous system? (Weight ½.)

3. Name the different parts of the alimentary tract beginning at the mouth. (Weight 1.)

4. What three classes of food are necessary to man? (Weight ½.)

5. What kind is digested in the stomach? (Weight ½.)

6. Upon what kinds of food does the pancreatic juice act and what enzymes are found in that secretion? (Weight 1.)

7. Locate the thyroid and suprarenal glands in the human body. (Weight ½.)

8. What secretion is produced by the liver and where does it enter the alimentary tract? (Weight 1.)

9. What is the rate of respiration per minute and what is the difference in composition of the inspired and expired air. (Weight ½.)

Total weight of question Z, 6; Smith made 0; Jones, ½; Brown, 0.

Identification of Specimens.

Each candidate was asked to "write the unabbreviated official name of each" of the specimens. Their answers follow:

Smith: (1) Tr. Quassia. (2) Spirit Camphorae. (3) Spirit Nitre Sweet. (4) Syrup Prunus Virginiae. (5) Conium Seed. (6) Caraway Seed. (7) Anise Seed. (8) Fennell Seed. (9) Buchu Leaves. (10) Uva Ursae.

Jones: (1) Acetum Scillae. (2) Tinctura Camphorae. (3) Spiritus Aetheris Nitrosi. (4) Syrupus Prunus Virginianae. (5) Strophanthus Kombe. (6) Foeniculum Vulgare. (7) Pimpinella Anisum. (8) Carum Carvi. (9) Barosma Betulina. (10) Jaborandi.

Brown: (1) Tr. Nux Vomica. (2) Spts. Camphor. (3) Sweet Spirits Nitre. (4) Syr. Wild Cherry. (5) Caraway Seed. (7) Anise Seed. (8) Fennel Tea. (9) Small Buchu. (10) Senna Leaf.

Total weight of this feature of the examination, 10 (1 for each specimen); Smith made 10; Jones 7; Brown, 7.

Total weight of questions A to Z inclusive, 250; Smith made 97½, equal to 39 per cent.; Jones, 145, equal to 58 per cent.; Brown, 66, equal to 26 per cent.

PRACTICAL EXAMINATION.

THE STATE PHARMACEUTICAL EXAMINING BOARD OF PENNSYLVANIA.

FOR REGISTERED PHARMACIST CERTIFICATE.

Laboratory No. —

RULES: Do not write anything on the label but your laboratory number. Write directions on this sheet.

After finishing your preparations, answer the questions on this sheet and hand both to the examiner in charge.

You are rated for accuracy, neatness, dispatch and finished product. Time allowed for this examination is two (2) hours. Read questions carefully before you proceed. You are allowed One Trial Only. Do not throw your preparation away if you spoil it.

Task A.

HENRY BEATES, JR., M. D.
260 SOUTH 10TH STREET
PHILADELPHIA
BELL PHONE SPRUCE 38-03

NOTE—This prescription is only for the person named hereon, and is ordered for the conditions existing at the time of consultation: it is, therefore, not to be renewed or a copy given without my written consent.

R

Pil. Ferri Carb. gr. iij. No. X

1. One before meals and

before retiring.

7/30/11

CALLS DELIVERED BEFORE 10 A. M. RECEIVE ATTENTION THAT SAME DAY.

Beates

P. S.

PILULÆ FERRI CARBONATIS, U. S. P.

Granulated Ferrous Sulphate.....	16 Gm.
Potassium Carbonate.....	8 Gm.
Sugar	4 Gm.
Tragacanth	1 Gm.
Althea	1 Gm.
Glycerin	
Water, each q.s.	

To make 100 pills.

1. State how you made these pills. Give reasons for using this procedure.

Smith: Take potassium carbonate grs 7, and rub it with Glycerine & Water qs. Add Ferrous Sulphate grs 19— and Sugar grs iij let stand till it assumes a green color, then add Althea and Tragacanth aa grs ss to make Pills No. X each weighing grs iij.

Jones did not divulge his procedure or the reason for using it.

Brown: Rub my Ferrous Sulphate with Potassium Carbonate Then my Sugar & Tragacanth and my Althea— Then took my Glycerin and water to make my Mass and divided them off into (10) pills of 3 gr each.

2. Give quantities of each ingredient used.

Smith answered this by writing his figures opposite the printed quantities in the examination sheet. Opposite 16 Gm. he wrote 19 grs.; 8 Gm., 7 grs.; 4 Gm., 3 grs.; 1 Gm., ½ gr.; 1 Gm., ½ gr.

Jones wrote the names of the ingredients with the quantities after them, his results being as here set forth: 16 Gm., 12 grs.; 8 Gm., 6 gr.; 4 Gm., 3 gr.; 1 Gm., 1 gr.; 1 Gm., 1 gr.; Glycerine, 5 min.; Water, 16 min.

Brown followed Smith's plan. His figures were: 16 Gm., 24 grs.; 8 Gm., 12 grs.; 4 Gm., 6 grs.; 1 Gm., 1½ grs.; 1 Gm., 1½ grs.

3. Write directions here.

Smith: Rub the Potassium Carbonate with Glycerine & Water, add the Granulated Ferrous Sulphate and Sugar. Let stand till it obtains a greenish color. Then add Tragacanth and Althea to make pills No. X.

Jones: One (1) before meals and before retiring.

Brown: One (1) before meals and before retiring.

Task B.

1. State briefly how you compounded this prescription and why you used this procedure. [For the prescription, see opposite page.]

Smith: Rub the Potass Chlorate till fine powder place in Bot add Tr. Ferri Chlor. To form Chlorine gas Add oz ss Water to dissolve Pot Chlorat add Glycerine and water and lastly Hydrochl Acid Shake Well.

Jones: Potassium Chlorate is put into a bottle to this is added Hydrochloric Acid to liberate the — [this word is so indistinctly written as to leave doubt as to what it is; it may be "five," "pure" or "free"] Oxogen. A little water is then added, this is followed by the addition of Tr. Ferric Chloride and Glycerine and then sufficient water is added.

Brown: I took my Potass Chlorat added my Ac. Hydrochlor set aside to let gas escape added my Tr. Ferri Chl. then my glycerin & Lastly my water of which was sufficient quantity for the two ounces.

GEORGE B. MILLER, M. D.
634 DIAMOND STREET
PHILADELPHIA

OFFICE HOURS:
UNTIL 9 A. M.
2 TO 3 P. M.
6 TO 7.30 P. M.
SUNDAY, UNTIL 9 A. M. ONLY.
BELL TELEPHONE

R Potass Chlorat 3i ss
Ac. Hydrochl 3i
Tr. Ferri Chl 3ii
Glycerini 3iv
Aqua Ros. ad 3ii
M. Sig. 3i in 3pk of water every 3 hrs Miller

This is the prescription referred to under "Task B," opposite page.

2. Write directions here.

Smith: Teaspoonful in tablespoonful of water every three hours.

Jones: One (1) teaspoonful in a tablespoonful of water every three (3) hours. Miller.

Brown: One (1) teaspoonful in Tablespoonful of water every three hours. Dr. Miller.



R Ext. Bellad 1.05

Camphora 2.

Acetanilid 1.

Sacchar Alb. 2.

Met ft. Chl. # X.

I One every 2

hours Applebach
2/10/10

Prescription referred to under "Task C," above.

Task C.

1. State briefly how you compounded this prescription.
[For the prescription, see below.]

Smith: Rub the Ext. Bellad with the Camphor, and then add the Sugar, and thoroughly incorporate till fine powder then add the acetanilid. And Triturate till thoroughly incorporated And then divided into Ten powders.

Jones: Dissolve Camphor by a little alcohol, add Extract Belladonnae, and then add Sugar and Acetanilid in successive portions.

Brown: Powder my camphor add my Belladonna Then add my Acetanilid Lastly my sacch. alb. Divide them into required amount powders.

2. Write directions here.

Smith: One every 2 hours.

Jones: One every two (2) hours. Applebach.

Brown: One (1) every two (2) hours. Dr. Applebach.

Task D.

Determine the percentage of Alcohol present in sample of wine.

PROCESS:

Take the specific gravity (to 3 decimals) of a carefully measured portion of the wine; evaporate this to about one-third of its original weight, cool and add water until liquid measures its original volume and take its specific gravity (to 3 decimals). The difference between the two specific gravities, deducted from 1,000 corresponds to the specific gravity of an alcohol containing the same percentage of absolute alcohol, as wine under examination, the corresponding percentage being ascertained by referring to the alcohol table.

Per cent. by wt. abs. alc.	Sp. gr. 15.6° C.	Per cent. by wt. abs. alc.	Sp. gr. 15.6° C.	Per cent. by wt. abs. alc.	Sp. gr. 15.6° C.
1.....	0.9981	15.....	0.9776	29.....	0.9590
2.....	0.9963	16.....	0.9764	30.....	0.9574
3.....	0.9945	17.....	0.9752	31.....	0.9558
4.....	0.9928	18.....	0.9740	32.....	0.9542
5.....	0.9912	19.....	0.9727	33.....	0.9524
6.....	0.9896	20.....	0.9715	34.....	0.9507
7.....	0.9881	21.....	0.9703	35.....	0.9489
8.....	0.9867	22.....	0.9690	36.....	0.9471
9.....	0.9853	23.....	0.9677	37.....	0.9452
10.....	0.9839	24.....	0.9663	38.....	0.9433
11.....	0.9826	25.....	0.9649	39.....	0.9414
12.....	0.9813	26.....	0.9635	40.....	0.9394
13.....	0.9800	27.....	0.9621		
14.....	0.9788	28.....	0.9606		

Make all calculations on this sheet. Show all figures.

None of the three attempted this.

As above stated, those who did the practical work were rated on accuracy, neatness, dispatch and product. For each of the four tasks accuracy was weighted 1½; neatness, 1½; dispatch, 1½; and product, 20—a total of 25, or 100 for the four. The ratings of the three candidates on this part of their examinations were—

Smith: Task A—Accuracy, ½; neatness, 1½; dispatch, ½; product, 12; total, 15. Task B—Accuracy, 1½; neatness, 1½; dispatch, 1; product, 14; total, 17½. Task C—Accuracy, 1½; neatness, 1½; dispatch, ½; product, 10; total, 13½. Task D—Accuracy, 1½; neatness, 1½; dispatch, ½; product, 0; total, 4½. [?] Total on practical work, 50.

Jones: Task A—Accuracy, 1½; neatness, 1½; dispatch, ½; product, 0; total 3½. Task B—Accuracy, 1½; neatness, 1½; dispatch, ½; product, 18; total, 22½. Task C—Accuracy, 1½; neatness, 1½; dispatch, 1½; product, 20; total, 25. Task D—0. Total on practical work, 50.

Brown: Task A—Accuracy, 1½; neatness, 1½; dispatch, 1½; product, 2; total, 7. Task B—Accuracy, 1½; neatness, 1½; dispatch, 1½; product, 18; total, 23. Task C—Accuracy, 1½; neatness, 1½; dispatch, 1½; product, 12; total, 17. Task D—0. Total on practical work, 47.

On the final rating Smith made, on answers, 39 per cent.; on work, 50 per cent.; average, 44.5 per cent.; on identification of specimens, 10 per cent.; total, 54.5.

Jones made, on answers, 58 per cent.; on work, 50

per cent.; average, 54 per cent.; on identification of specimens, 7 per cent.; total, 61 per cent.

Brown made, on answers, 26 per cent.; on work, 47 per cent.; average, 36.5 per cent.; on identification of specimens, 7 per cent.; total, 43.5 per cent.

None of the three candidates passed.

Curious Answers to Board Questions.

Below are reproduced some of the answers received by the board of pharmacy of a Southern State at a recent examination:

Spirits mindereris is oil peppermint.
Black wash is plumbi calcis.
Black wash is lotio plumbi acetate.
Cascara sagrada—official name amalga.
Ceratis are chalk mixtures.
Ozone is a solid.
Hydrogen is air.
Gray powder is Dover's powder.
Gray powder is plumbi subacitatis.
Nitrate silver is official preparation of metallic mercury.
Basham's mixture is liquor ammoni arsenic et hydrar-
geri iodide.

Fining a Poisoner.*

A local whisky dealer pleaded guilty in the court of special sessions on Monday to selling wood alcohol as whisky, and was fined \$250. This isn't comic opera civilization, as a stranger might be excused for assuming, but the real thing as we practice it in the largest city of the country at the end of a dozen or more years of active crusading for pure food and drink.

It is common knowledge that wood alcohol is a deadly poison. One of the effects upon consumers it fails to kill is permanent blindness. The sale of wood alcohol as whisky is little different in character, so far as danger to the purchaser is concerned, from the sale of strychnine as baking powder, or arsenic as breakfast food. All three of these substances are, in small amounts, insidious poisons, and in larger quantities rapidly fatal.

So long as this slipshod and really imbecile method of warfare against dangerous adulteration is continued there is little hope of improvement. For such an offense as selling poison in whisky any fine is an absurdly inadequate penalty. A considerable term in jail should be the least possible punishment.

"Sal Vet."

Sal vet "a highly medicated salt," exploited at the rate of \$5 per 100 pounds, as a destroyer of worms in stock and a "reliable conditioner and tonic for sheep, hogs, horses and cattle" was analyzed in the laboratory of the North Dakota department of agriculture. The analyst reported that the preparation contains "93.43 per cent. of common salt . . . to which has been added a small quantity of iron sulphate with enough charcoal to blacken the entire mass, and small quantities of crude gentian and quassia."

Plectranthin.

Yagi (*Arch. internat. de pharm. et therap.*) has examined plectranthus glaucocalis, a plant growing in southern Japan and used extensively for the treatment of stomach troubles. He has succeeded in isolating a bitter principle which he has called plectranthin. It occurs as long, fine needles, melting at 220°, and possesses the formula $C_{25}H_{54}O_8$.

* From the New York Globe.

Some Horticultural Helps.

Druggists who wish to profit by helping gardeners fight the pests of bugs and weeds will doubtless be interested in the appended formulas garnered from various sources:

BORDEAUX MIXTURE.

Copper sulphate..... 5 pounds.
Quicklime 5 pounds.
Water 50 gallons.

Dissolve the copper sulphate in 10 gallons of water; slake the lime in half a barrel of water. Dilute the copper solution to 20 gallons, strain in the lime mixture, and dilute to 50 gallons.

SELF-BOILED LIME AND SULPHUR SPRAY.

Quicklime 10 pounds.
Sulphur 10 pounds.
Water 50 gallons.

Put the lime with 1 gallon of water in a barrel; add the sulphur; stir, and add enough water to make a thin paste. Stir vigorously until the ebullition subsides to slight proportions; and dilute to 50 gallons.

WEED KILLERS.

I.

Potassium dichromate..... 5 pounds.
Water 15 gallons.

II.

Sodium chloride..... 3 pounds.
Chrome alum..... 2 pounds.
Water 15 gallons.

III.

Ferrous sulphate..... 5 pounds.
Water 15 gallons.

ROSIN WASH.

Rosin 4 pounds.
Soda lye (78%)..... 4 pounds.
Fish oil..... 8 ounces.
Water..... enough to make 20 gallons.

Boil the rosin with the lye, the oil and a couple of quarts of water until a dark coffee-colored liquid is obtained. Dilute to 5 gallons with hot water to make the stock solution which is diluted 1 to 3 for use.

LIME ARSENITE SPRAY.

(a) Arsenic trioxide..... 1 pound.
Sodium carbonate..... 4 pounds.
Water 1 gallon.

Boil together for twenty minutes replacing the water evaporated. Stock solution.

(b) Quicklime 24 pounds.
Water 4 gallons.

To be freshly prepared.

For use, the lime mixture is mixed with water in the proportion of 1 in 40; and to each 40 gallons of this dilution 1 pint of stock solution *a* is added.

RED OIL EMULSION.

Red oil..... 2 gallons.
Hard laundry soap..... 1 pound.
Sodium carbonate..... 1 ounce.
Water..... enough to make 30 gallons.

Boil the soap and the sal soda in 1 gallon of water until dissolved; remove from the fire; add the oil; re-apply heat until boiling ensues, agitate until emulsified. For use, dilute to 30 gallons.

Correspondence.

Short, timely articles upon subjects of interest to pharmacists are solicited for this department. In order to be in time for publication in the issue of a given month, they should be in the editor's hands on the fifteenth day of the month previous. Anonymous communications will not be published; but if the author expresses a wish to have his name withheld, this wish will be scrupulously regarded and his letter considered confidential.

Prof. Coblentz's Resignation.

New York, May 24th, 1911.

To the Editor of THE DRUGGISTS CIRCULAR:

Upon reading your editorial on page 237 of the May number, I note that you are evidently under the impression that the retirement of Prof. Coblentz from the New York College of Pharmacy was, or may have been, influenced by his connection with the crusade of the New York *World* against the reputation of the pharmacists of this city. Since this idea has frequently been expressed in various directions by others, I think it just and proper to say through the CIRCULAR that there was no connection whatever between the two events. Early in the academic year of 1910-11, Mr. Theodore Weicker, on behalf of Messrs. Squibb & Co., informed me of the contemplated engagement of Prof. Coblentz as chemist for that house, in order that the college might not be found entirely unprepared for the change. Prof. Coblentz's retirement was wholly the result of the carrying out of this arrangement.

H. H. RUSBY,
Dean.

[This letter was received after the pages of our June number devoted to "Correspondence" had been made ready for the press. We were well aware when we wrote the article in question that Prof. Coblentz had resigned his position at the college, or had determined to do so, before engaging in the "crusade" referred to, and nowhere in that article, so far as a careful rereading of it reveals, is it intimated or implied that his resignation was brought about by his connection with the "crusade." However, we are pleased to give space to Dean Rusby's letter and to lay before our readers the statements made therein.—Editor THE DRUGGISTS CIRCULAR.]

A College Graduate Objects to Extra-pharmaceutical Work.

Schenectady, N. Y., June 12th, 1911.

To the Editor of THE DRUGGISTS CIRCULAR:

Many people believe that if a man—I refer to the city man—really wants to enjoy life and occupy a high position in the community because of his professional standing, only one place exists, and that is the country. Let me say from what I have seen of the so-called drug life here, this is not so.

I have worked in New York city for the past eight years, and owing to the fact that I thought I would enjoy a change I accepted a position in this town. Now I have gone "through the mill" and have had a decent taste of the country from its green environments and other forms of shrubbery up to its extreme lonesomeness and periods of solitude. For to work in a country store, no matter how large it may be, requires no extra skill and certainly no college train-

ing; for what layman could not hand over the counter, at the public request, a bottle of Doctor Kilem & Takem's heart cure, or sell a penny's worth of school supplies, or a can of varnish and all such junk.

It is no wonder that all or almost all the letters written your paper and other drug journals bear strong "kicks" against prerequisite college training, and they all come from country "rubes." Since I have been here—it's already four weeks—we have not had a single prescription.

I will conclude by saying that any man who has gone through a respectable college training should stick to a large city and practice more of real pharmacy and less of hardware and general candy business and steer clear of the small towns. Let me hear through your paper what others have to say in this respect.

SAMUEL H. FRITZ.

Diagnosis First; then Materia Medica.

Brooklyn, N. Y., June 13th, 1911.

To the Editor of THE DRUGGISTS CIRCULAR:

Please allow me to suggest a field of labor for our good friend, the propaganda specialist—a field that should yield a manifold harvest—and, incidentally, give a little advice to the younger medical practitioner.

The field embraces the medical college and general hospital.

The advice is, Stand on your own feet.

Time and again I have noted the young practitioner asking for Florist's hydriodic acid, Brother's hypophosphites, or Lamplighter's misterine. His preceptor and professors have told him they were good. I will admit that many of these preparations are good and have come to be recognized as products of high standard and, being made by experts, with the latest improved facilities, are not likely to vary. But specifying them all the time is getting the young doctor into a bad habit—a habit that will grow. And later, when he is away from the older heads, instead of spending his time studying true materia medica and writing prescriptions for drugs that will meet the particular needs of his patient, he reads a few pages of a stranger's flowery statement that would take first prize in a literary show, counts the number of testimonials, writes a prescription for some proprietary with a nice euphonious name and—the patient gets well in spite of the medicine.

How much better it would be if he had followed the lead of our government, recognized the Pharmacopœia as the standard, and written in good clear hand after the name of a preparation of known strength and therapeutic value the three letters, "U. S. P."? Wouldn't that boost his manhood a peg?

Thanks, Mr. Editor, for your patience. I have relieved my mind and now I feel better. Good night.

F. W. SCOTT, JR.

Information Wanted.

Spring Valley, Ill., May 17th, 1911.

To the Editor of THE DRUGGISTS CIRCULAR:

Can you tell us the names of cities which have ordinances—

(1) Prohibiting the house-to-house distribution of medicine samples.

(2) Prohibiting the advertisement and sale of "soothing syrups" containing opium, etc.

(3) Prohibiting the advertising or display of female remedies and remedies for venereal diseases.

We wish to write the city clerk or attorney at these places for copies of these ordinances to use in drawing up similar local ones.

THE THOMPSON DRUG COMPANY.

[From time to time we have printed information on these subjects, but have no such list of cities as is requested. We hope each of our readers who lives in a city having any such ordinances will communicate direct with our correspondent. Looking hurriedly through our files for the past fifteen years, we find references to the subject in the issues of the CIRCULAR mentioned, as herewith summarized:

1907, May, page 396, ordinance at East Orange, N. J.; 1906, May, page 191, ordinance at Grand Rapids, Mich.; September, page 346, child killed in Ontario; 1905, June, page 213, law wanted in Indiana; August, page 291, ordinance at Houston, Texas; December, page 450, police ordered to stop distribution of a headache powder at Rochester, N. Y.; 1903, June, page 113, editorial on a New York State law; 1902, August, page 156, editorial, child made sick at Meriden, Conn.; November, page 222, editorial on an Ohio law; 1901, July, page 135, editorial on a Wisconsin law; 1900, February, page xix, quotations from Scranton and Harrisburg papers; March, page xxxv, ordinance wanted by Milwaukee paper; 1899, February, page 23, editorial on "Danger of Medicine Samples"; April, page lv, Leavenworth (Kan.), children made sick; Santa Rosa, Cal., wants ordinance; 1897, January, page ii, complaints from Buffalo; 1896, page ii, complaints from Columbus.

News has just come to hand that orders have been issued by the health commission of Denver for the arrest on sight of distributors of free samples of medicines.—Editor THE DRUGGISTS CIRCULAR.]

Anonymous Correspondence.*

Changes Noted in the Circular.

Down in Sunny Tennessee.

My Dear Old Sport:

I have been taking your old journal a long time; in fact I have grown grey or gray, I don't know which, or both, taking it; anyhow, my whiskers and hair are whiter than they were when I began taking it; have recently cut off part of the whiskers but still take the whole of the CIRCULAR—imperfections and all.

Times change, men change with them, and I suppose drug journals and their editors have a right to "flop over" occasionally, and now here comes along the staid and stolid old DRUGGISTS CIRCULAR, that I have known subscriptionally for a whole generation (33 years), and during all that time has fit, cussed and cried about anonymous letters being sent in for publication, a-telling everybody that they (the letters) would be filed straightway in the waste basket, and sent at once to the crematory, when lo and behold, here comes the June, 1911, number, with an editorial-ette of about a column in length, asking that as many

* In the CIRCULAR for last month, page 290, we requested readers to send us their opinions of the CIRCULAR, withholding their names if they desired. We invited all who "had a kick coming" to work it off and send the result to us, assuring them that it would have a respectful hearing. The invitation is held open for another month.—Editor THE DRUGGIST CIRCULAR.

of its readers as can do so, favor it with an anonymous letter.

Old Opportunity has called and found me with my pen in hand, and if this deponent could only send you a slice of the weather he is now enduring while trying to embrace old "Opty" you would not need anything else to warm your cockles or melt your hard heart, either. A few years since you offered your readers a chance of telling you what they thought of you, but they were required to do so over their own cognomens, and I wrote you, I thought some of your editorials were good, that I thought the "Notes and Queries" column had been of some advantage to me, and the information gained from that department was possibly worth the subscription price to any subscriber; and I believe some other points were mentioned, but, of course, that was over my own signature. Since that time I have changed my mind and will take advantage in this anonymous letter to say that I find your old editorials much better, the "Notes and Queries" column has gone into *pages*, and each issue is worth the year's subscription. You have recently added a soda-water department, and there are a lot of things that ought to be done, but you seem to be "getting on to" the job pretty well, so I will leave you in charge a while longer.

From your old friend,

A. N. ONYMOUS:

"Let All the Ends Thou Aim'st At," Etc.

From the Coal Regions.

To the Iconoclasticest Editor:

As I took up the CIRCULAR for June and tore off the wrapper, I said: "Well, I believe this is about the best *all-round* pharmaceutical journal. Some there are excellent in certain ways, but this is about the best *all-round* one." On opening it I saw your request for anonymous opinions, so I concluded to send the above. I take ten or twelve, so have a fair idea. I have always liked your fearless, independent editorials, aiming for the *truth*. They are always timely, too. The practical matter is good. It is well printed. Its illustrations are always attractive and more would help, but are not absolutely needed when the matter is so good.

PARK PHARMACIST.

Cement for Wooden Vessels.

Cracks in barrels, tubs, tanks, or other wooden vessels may be satisfactorily filled with a preparation made as follows:

Lard	6 pounds.
Common salt.....	4 pounds.
Beeswax	3½ pounds.
Sifted wood ashes.....	4 pounds.

Melt the wax with the lard over a gentle heat; add the salt and mix thoroughly, then stir in the ashes. The cement is to be applied hot.

Emulsion of Sesame Oil.

Arloing recommends (*Prescriber*) the following ingredients and proportions in making an emulsion of sesame oil sometimes prescribed in the treatment of diabetes:

Sesame oil.....	600 grammes.
Water	300 grammes.
Solution of sodium hydroxide	
(29 per cent.).....	6 c.c. (mils.)

Decision of the United States Supreme Court in the Johnson "Cancer Cure" Case.

On May 29th the United States supreme court rendered a decision in the Johnson "cancer cure" case which sustains the contention of the defendant that the pure food and drugs law does not apply to statements made on labels as to the curative properties of medicines. Three of the justices dissented.

The opinion of the court, delivered by Justice Holmes, follows:

This is an indictment for delivering for shipment from Missouri to Washington, D. C., packages and bottles of medicine bearing labels that stated or implied that the contents were effective in curing cancer, the defendant well knowing that such representations were false. On motion of the defendant the District Judge quashed the indictment (17 Fed. Rep. 313), and the United States brought this writ of error under the act of March 2, 1907, c. 2564, 34 Stat. 1246.

The question is whether the articles were misbranded within the meaning of section 2 of the food and drugs act of June 30th, 1906, making the delivery of misbranded drugs for shipment to any other State or Territory or the District of Columbia a punishable offense. By section 6 the term drug includes any substance or mixture intended to be used for the cure, mitigation or prevention of disease. By section 8 the term "misbranded" shall apply to all drugs or articles of food, * * * the package or label of which shall bear any statement, design or device regarding such article, or the ingredients or substances contained therein which shall be false or misleading in any particular, and to any food or drug product which is falsely branded as to the State, Territory or country in which it is manufactured or produced. * * * An article shall also be deemed to be misbranded: In case of drugs—First, If it be an imitation of or offered for sale under the name of another article. Second, (in case of a substitution of contents), or if the package fail to bear a statement on the label of the quantity or proportion of any alcohol, morphine, opium, cocaine, heroin, alpha or beta eucaine, chloroform, cannabis indica, chloral hydrate or acetanilid, or any derivative or preparation of any such substance contained therein."

It is a postulate, as the case comes before us, that in a certain sense the statement on the label was false, or, at least misleading. What we have to decide is whether such misleading statements are aimed at and hit by the words of the act. It seems to us that the words used convey to an ear trained to the usages of English speech a different aim; and although the meaning of a sentence is to be felt rather than to be proved, generally and here the impression may be strengthened by argument, as we shall try to show.

We lay on one side as quite unfounded the argument that the words "statement which shall be misleading in any particular" as used in the statute do not apply to drugs at all—that the statements referred to are those "regarding such article," and that "article" means article of food, mentioned by the side of drugs at the beginning of the section. It is enough to say that the beginning of the sentence makes such a reading impossible, and that article expressly includes drugs a few lines further on in what we have quoted, not to speak of the reason of the thing. But we are of opinion that the phrase is aimed not at all possible false statements, but only at such as determine the identity of the article, possibly including its strength, quality and purity, dealt with in section 7. In support of our interpretation the first thing to be noticed is the second branch of the sentence: "Or the ingredients or substances contained therein." One may say with some confidence that in idiomatic English this half, at least, is confined to identity, and means a false statement as to what the ingredients are. Logically it might mean more, but idiomatically it does not. But if the false statement referred to is a misstatement of identity as applied to a part of its objects, idiom and logic unite in giving it the same limit when applied to the other branch the article, whether simple or one that the ingredients compose. Again, it is to be noticed that the cases of misbranding, specifically mentioned and following the general words that we have construed, are all cases analogous to the statement of identity and not at all to inflated or false commendation of wares. The first is a false statement as to the country where the article is manufactured or produced; a matter quite unnecessary to specify if the preceding words had a universal scope, yet added as not being within them. The next case is that of imitation and taking the name of another article, of which the same may be said, and so of the next, a substitution of contents. The last is breach of an affirmative requirement to disclose the proportion of alcohol and certain other noxious ingredients in the package—again a matter of plain past history concerning the nature and amount of the poisons employed, not an estimate or prophecy concerning their effect. In further confirmation, it should be noticed that although the indictment alleged a wilful fraud, the shipment is punished by the statute if the article is misbranded, and that the article may be misbranded without any conscious fraud at all. It was natural enough to throw this risk on shippers with regard to the identity of their wares, but a very different and unlikely step to make them answerable for mistaken praise. It should be noticed still further that by section 4 the determination whether an article is misbranded is left to the bureau of chemistry of the department of agriculture, which is most natural if the question concerns ingredients and kind, but hardly so as to medical effects.

To avoid misunderstanding we should add that, for the purposes of this case, at least, we assume that a label might be of such a nature as to import a statement concerning identity, within the statute, although in form only a commendation of the supposed drug. It may be that a label in such form would exclude certain substances so plainly to all common understanding as to amount to an implied statement of what the contents of the package were not; and it may be that such a negation might fall within the prohibitions of the act. It

may be, we express no opinion upon that matter, that if the present indictment had alleged that the contents of the bottles were water, the label so distinctly implied that they were other than water, as to be a false statement of fact concerning their nature and kind. But such a statement as to contents, undescribed and unknown, is shown to be false only in its commendatory and prophetic aspect, and as such is not within the act.

In view of what we have said by way of simple interpretation we think it unnecessary to go into consideration of wider scope. We shall say nothing as to the limits of constitutional power, and but a word as to what congress was likely to attempt. It was much more likely to regulate commerce in food and drugs with reference to plain matter of fact, so that food and drugs should be what they professed to be, when the kind was stated, than to distort the uses of its constitutional power to establishing criteria in regions where opinions are far apart. See *School of Magnetic Healing vs. McAnnulty*, 187 U. S. 94. As we have said above, the reference of the question of misbranding to the bureau of chemistry for determination confirms what would have been our expectation and what is our understanding of the words immediately in point.

Judgment affirmed.

DISSENTING OPINION.

The dissenting opinion was delivered by Justice Hughes, Justices Harlan and Day concurring. The text follows:

I am unable to concur in the judgment in this case for the following reasons:

The defendant was charged with delivering for shipment in interstate commerce certain packages and bottles of drugs alleged to have been misbranded in violation of the food and drugs act of June 30th, 1906, chapter, 2915, 34 Stat. 768.

The articles were labeled respectively "Cancerine tablets," "Antiseptic tablets," "Blood purifier," "Special No. 4," "Cancerine No. 17," and "Cancerine No. 1,"—the whole constituting what was termed in substance "Dr. Johnson's Mild Combination Treatment for Cancer." There were several counts in the indictment with respect to the different articles. The labels contained the words "Guaranteed under the pure food and drugs act, June 30th, 1906"; and some of the further statements were as follows:

"Blood Purifier. This is an effective tonic and alterative. It enters the circulation at once, utterly destroying and removing impurities from the blood and entire system. Acts on the bowels, kidneys and skin, eliminating poisons from the system, and when taken in connection with the mild combination treatment gives splendid results in the treatment of cancer and other malignant diseases. I always advise that the blood purifier be continued some little time after the cancer has been killed and removed and the sore healed."

"Special No. 4. * * * It has a strong stimulative and absorptive power; will remove swelling, arrest development, restore circulation, and remove pain. Is indicated in all cases of malignancy where there is a tendency of the disease to spread, and where there is considerable hardness surrounding the sore. Applied thoroughly to a lump or to an enlarged gland will cause it to soften, become smaller and be absorbed."

"Cancerine No. 1. * * * Tendency is to convert the sore from an unhealthy to a healthy condition and promote healing. Also it destroys and removes dead and unhealthy tissue."

In each case the indictment alleged that the article was "wholly worthless," as the defendant well knew.

In quashing the indictment the district court construed the statute. The substance of the decision is found in the following words of the opinion: "Having regard to the intendment of the whole act, which is to protect the public health against adulterated, poisonous and deleterious food, drugs, etc., the labeling or branding of the bottle or container, as to the quantity or composition of the ingredients or substances contained therein which shall be false or misleading," by no possible construction can be extended to an inquiry as to whether or not the prescription be efficacious or worthless to effect the remedy claimed for it." And the question on this writ of error is whether or not this construction is correct. *United States vs. Keitel*, 211 U. S. 370.

What then is the true meaning of the statute?

Section 8 provides:

"Sec. 8. That the term 'misbranded,' as used herein, shall apply to all drugs, or articles of food, or articles which enter into the composition of food, the package or label of which shall bear any statement, design or device regarding such article, or the ingredients or substances contained therein which shall be false or misleading in any particular, and to any food or drug product which is falsely branded as to the State, Territory or country in which it is manufactured or produced."

The words "such article" in this section, as is shown by the immediate context, refer to "drugs" as well as to "food." "Drugs" are thus defined in section 6:

"Sec. 6. That the term 'drug,' as used in this act, shall include all medicines and preparations recognized in the United States Pharmacopoeia or National Formulary for internal or external use, and any substance or mixture of substances intended to be used for the cure, mitigation, or prevention of disease of either man or other animals."

Articles, then, intended to be used for curative purposes, such as those described in the indictment, are within the statute, though they are not recognized in the United States Pharmacopoeia or the National Formulary. And the offense of misbranding is committed if the package or label of such an article bears any statement regarding it "which shall be false or misleading in any particular."

But it is said that these words refer only to false statements which fix the identity of the article. According to the construction placed upon the statute by the court below in quashing the indictment, if one puts upon the market in interstate commerce, tablets of inert matter, or a liquid wholly worthless for any curative purposes as he well knows, with the label "Cancer Cure" or "Remedy for Epilepsy," he is not guilty of an offense, for in the sense attributed by that con-

struction to the words of the statute he has not made a statement regarding the article which is false or misleading in any particular.

I fail to find a sufficient warrant for this limitation, and, on the contrary, it seems to me to be opposed to the intent of congress and to deprive the act of a very salutary effect.

It is strongly stated that the clause in section 8—"or the ingredients or substances contained therein"—has reference to identity and that this controls the interpretation of the entire provision. This, in my judgment, is to ascribe an altogether undue weight to the wording of the clause and to overlook the context. The clause, it will be observed, is disjunctive. If congress had intended to restrict the offense to misstatements as to identity, it could easily have said so. But it did not say so. To a draftsman with such a purpose the language used would not naturally occur. Indeed, as will presently be shown, congress refused with the question up, so to limit the statute.

Let us look at the context. In the very next sentence, the section provides (referring to drugs) that an article shall "also" be deemed to be misbranded if it be "an imitation of or offered for sale under the name of another article," or in case of substitution of contents or of failure to disclose the quantity or proportion of certain specified ingredients, if present, such as alcohol, morphine, opium, cocaine, etc.

It is a matter of common knowledge that the "substances" or "mixtures of substances" which are embraced in the act, although not recognized by the United States Pharmacopoeia or National Formulary, are sold under trade names without any disclosure of constituents, save to the extent necessary to meet the specific requirements of the statute. Are the provisions of the section to which we have referred, introduced by the word "also," and the one relating to the place of manufacture, the only provisions as to descriptive statements which are intended to apply to these medicinal preparations? Was it supposed that with respect to this large class of compositions, nothing being said as to the ingredients except as specifically required, there could be, within the meaning of the act, no false or misleading statement in any particular? If false and misleading statements regarding such articles were put upon their labels, was it not the intent of congress to reach them? And was it not for this very purpose that the general language of section 8 was used?

The legislative history of the section would seem to negative the contention that congress intended to limit the provision to statements as to identity. The provision in question as to misbranding, as it stood in the original bill in the senate (then section 9), was as follows:

"If the package containing it, or its label, shall bear any statement regarding the ingredients or the substances contained therein, which statement shall be false or misleading in any particular."

The question arose upon this language whether or not it should be taken as limited strictly to statements with respect to identity. It was insisted that the words had a broader range and the effort was made to produce an amendment which should be so specific as to afford no basis for the conclusion that anything but false statements as to identity or constituents was intended. An amendment was then adopted in the senate making the provision read: "any statement as to the constituent ingredients, or the substances contained therein, which statement shall be false or misleading in any particular."

With this amendment the bill was passed by the senate and went to the house. There the provision was changed by striking out the word "constituent" and inserting the word "regarding," so that it should read: "any statement regarding the ingredients or substances contained in such article, which statement shall be false or misleading in any particular."

Finally, it appears, that in conference the bill was amended by inserting the words "design, or device," and also the words "such article, or"; and thus the section became a part of the law in its present form—containing the words: "any statement, design or device regarding such article, or the ingredients or substances contained therein which shall be false or misleading in any particular."

It is difficult to suppose that, with the question distinctly raised, congress would have rejected the provision of the senate bill and broadened the language in the manner stated if it had been intended to confine the prohibition to false statements as to identity. Reading the act with the sole purpose of giving effect to the intent of congress, I cannot escape the conclusion that it was designed to cover false and misleading statements of fact on the packages or labels of articles intended for curative purposes, although the statements relate to curative properties.

It is, of course, true, that when congress used the words "false or misleading statement" it referred to a well-defined category in the law and must be taken to have intended statements of fact and not mere expressions of opinion.

The argument is that the curative properties of articles purveyed as medicinal preparations are matters of opinion, and the contrariety of views among medical practitioners, and the conflict between the schools of medicines are impressively described. But, granting the wide domain of opinion, and allowing the broadest range to the conflict of medical views there still remains a field in which statements as to curative properties are downright falsehoods and in no sense expressions of judgment. This field I believe this statute covers.

The construction which the district court has placed upon this statute is that it cannot be extended to any case where the substance labeled as a cure, with a description of curative properties, is "wholly worthless" and is known by the defendant to be such. That is the charge of the indictment.

The question, then, is whether, if an article is shipped in interstate commerce, bearing on its label a representation that it is a cure for a given disease, when on a showing of the facts there would be a unanimous agreement that it was absolutely worthless and an out-and-out cheat, the act of congress can be said to apply to it. To my mind the answer appears clear. One or two hypothetical illustrations have been given above. Others may readily be suggested. The records of actual prosecutions, to which I am about to refer, shows the operation the statute has had and I know of no reason why this should be denied to it in the future.

Our attention has been called to the construction which was immediately placed upon the enactment by the officers charged with its enforcement in the department of justice and the department of agriculture. It is true that the statute is a recent one, and, of course, the question is one for judicial decision. But it is not amiss to note that the natural meaning of the words used in the statute, reflected in the refusal of congress to adopt a narrower provision, was the meaning promptly attributed to it in the proceedings that were taken to enforce the law. And this appears to have been acquiesced in by the defendants in many prosecutions in which the defendants pleaded guilty. We have been referred to the records of the department of agriculture showing nearly thirty cases in which either goods had been seized and no defense made or pleas of guilty had been entered. Among these are found such cases as the following:

"No. 29. Hancock's Liquid Sulphur, falsely represented, among other things, to be 'Nature's Greatest Germicide.' * * * The Great Cure for * * * Diphtheria." Investigation begun November 22d, 1907. Plea of guilty.

"No. 180. Gowan's Pneumonia Cure, falsely represented, among other things, that it 'Supplies an easily absorbed food for the lungs that quickly effects a permanent cure.' Investigation begun November 22d, 1907. Criminal information. Plea of guilty."

"No. 181. 'Evelin,' falsely represented, among other things, that it 'Repairs and Rejuvenates the Eye and Sight.' Investigation begun February 13th, 1908. Plea of guilty."

"No. 261. 'Sure Thing Tonic,' falsely represented, among other things, to be 'Sure Thing Tonic.' * * * Restores Nerve Energy. Renew's Vital Force.' Investigation begun July 3d, 1909. Pleaded guilty."

"No. 424. 'Tuckahoe Lithia Water,' falsely represented, among other things, to be 'a sure solvent for calculi, either of the kidneys or liver, especially indicated in all diseases due to uric diathesis, such as gout, rheumatism, gravel stone, incipient diabetes, Bright's disease, inflamed bladder, eczema, stomach, nervous and malarial disorder.' Investigation begun July 9th, 1908. Plea of guilty."

"No. 427. 'Cancerine,' falsely represented, among other things to be 'A remarkable curative extract which, if faithfully adhered to, will entirely eradicate cancerous poison from the system.' * * * A specific cure for cancer in all its forms.' Investigation begun about April 12th, 1909. Criminal information. Plea of guilty."

I find nothing in the language of the statute which requires the conclusion that these persons who have confessed their guilt in making false and misleading statements on their labels should be privileged to conduct their interstate traffic in their so-called medicines, admittedly worthless, because congress did not intend to reach them.

Nor does it seem to me that any serious question arises in this case as to the powers of congress. I take it to be conceded that misbranding may cover statements as to strength, quality and purity. But so long as the statement is not as to matter of opinion, but consists of a false representation of fact—in labeling the article as a cure when it is nothing of the sort from any point of view, but wholly worthless—there would appear to be no basis for a constitutional distinction. It is none the less descriptive—and falsely descriptive—of the article. Why should not worthless stuff, purveyed under false labels as cures, be made contraband of interstate commerce, as well as lottery tickets? Champion vs. Ames, 138 U. S. 331.

I entirely agree that in any case brought under the act for misbranding—by false or misleading statement as to curative properties of an article—it would be the duty of the court to direct an acquittal when it appeared that the statement concerned a matter of opinion. Conviction would stand only where it had been shown that, apart from any question of opinion, the so-called remedy was absolutely worthless and hence the label demonstrably false; but in such case it seems to me to be fully authorized by the statute.

Accordingly I reach the conclusion that the court below erred in the construction that it gave the statute, and hence in quashing the indictment, and that the judgment should be reversed.

President Taft on the Nostrum Evil.

President Taft, while absent from Washington attending the Yale commencement exercises, sent the following emergency message to congress regarding the necessity for a more far-reaching food and drugs act:

To the Senate and House of Representatives:

Your attention is respectfully called to the necessity of passing at this session an amendment to the food and drugs act of June 30th, 1906, which will supplement existing law and prevent the shipment in interstate and foreign commerce and the manufacture and sale within the territories and the District of Columbia of worthless nostrums labeled with misstatements of fact as to their physiological action—misstatements false and misleading even in the knowledge of those who make them.

On June 30th, 1906, after an agitation of twenty years, the food and drugs act, passed by the fifty-ninth congress, received the approval of the president and became law. The purpose of the measure was two-fold, first, to prevent the adulteration of foods and drugs within the jurisdiction of the federal government, and, second, to prevent any false labeling of foods and drugs that will deceive the people into the belief that they are securing other than that for which they ask and which they have the right to get.

The law was received with general satisfaction and has been vigorously enforced. More than 2,000 cases have been prepared for criminal prosecution against the shippers of adulterated or misbranded foods and drugs, and seizures have been made of more than 700 shipments of such articles. More than two-thirds of these cases have been begun since March 4th, 1909. Of the criminal cases more than 800 have terminated favorably to the government, and of the shipments seized more than 450 have been condemned and either relabeled or destroyed. In every case in which the food seized was deleterious to health, it was destroyed. A large number of cases are now pending.

The supreme court has held in a recent decision (United States versus O. A. Johnson, opinion May 29th, 1911) that the food and drugs act does not cover the knowingly false label-

ing of nostrums as to curative effect or physiological action, and that inquiry under this salutary statute does not by its terms extend in any case to the inefficiency of medicines to work the cures claimed for them on the labels. It follows that, without fear of punishment under the law, unscrupulous persons, knowing the medicines to have no curative or remedial value for the diseases for which they indicate them, may ship in interstate commerce medicines composed of substances possessing any slight physiological action and labeled as cures for diseases which, in the present state of science, are recognized as incurable.

An evil which menaces the general health of the people strikes at the life of the nation. In my opinion, the sale of dangerously adulterated drugs, or the sale of drugs under knowingly false claims as to their effect in disease, constitutes such an evil and warrants me in calling the matter to the attention of the congress.

Fraudulent misrepresentations of the curative value of nostrums not only operate to defraud purchasers but are a distinct menace to the public health. There are none so credulous as sufferers from disease. The need is urgent for legislation which will prevent the raising of false hopes of speedy cures of serious ailments by misstatements of fact as to worthless mixtures on which the sick will rely while their diseases progress unchecked.

At the time the food and drugs act was passed there were current in commerce literally thousands of dangerous frauds labeled as cures for every case of epilepsy, consumption, and all lung diseases, cures for all kidney, liver, and malarial troubles, cures for diabetes, cures for tumor and cancer, cures for all forms of heart disease; in fact, cures for all the ills known at the present day.

The labels of many of these so-called cures indicated their use for diseases of children. They were not only utterly useless in the treatment of the disease, but in many cases were positively injurious. If a tithe of these statements had been true, no one with access to the remedies which bore them need have died from any cause other than accident or old age.

Unfortunately, the statements were not true. The shameful fact is that those who deal in such preparations know they are deceiving credulous and ignorant unfortunates who suffer from some of the greatest ills to which the flesh of this day is subject. No physician of standing in his profession, no matter to what school of medicine he may belong, entertains the slightest idea that any of these preparations will work the wonders promised on the labels.

Prior to the recent decision of the supreme court, the officers charged with the enforcement of the law regarded false and misleading statements concerning the curative value of nostrums as misbranding, and there was a general acquiescence in this view by the proprietors of the nostrums. Many pretended cures, in consequence, were withdrawn from the market, and the proprietors of many other alleged cures eliminated false and extravagant claims from their labels, either voluntarily or under the compulsion of criminal prosecution. Nearly one hundred criminal prosecutions on this charge were concluded in the federal courts by pleas of guilty and the imposition of fines. More than 150 cases of the same nature, involving some of the rankest frauds by which the American people were ever deceived are pending now, and must be dismissed.

I fear if no remedial legislation be granted at this session that the good which has already been accomplished in regard to these nostrums will be undone, and the people of the country will be deprived of a powerful safeguard against dangerous fraud. Of course, as pointed out by the supreme court, any attempt to legislate against mere expressions of opinion would be abortive; nevertheless, if knowingly false misstatements of fact as to the effect of the preparations be provided against, the greater part of the evil will be subject to control.

The statute can be easily amended to include the evil I have described. I recommend that this be done at once as a matter of emergency.

WILLIAM H. TAFT.

Positions Open in the Federal Service.

The United States civil service commission announces that the Philippine government desires to fill two vacancies in the position of chemist, division of organic chemistry, bureau of science, Manila, P. I., at salaries of \$2,000 each per annum, and vacancies requiring similar qualifications as they may occur, unless it shall be decided in the interest of the service to fill such vacancies by reinstatement, transfer, or promotion.

It is desired to secure the services of two young men between twenty and forty years of age with a high grade of scientific training who are capable of original work. A thorough training in general and organic chemistry at a reputable college or university and experience in organic research is a prerequisite for consideration for this position; a Ph. D. degree from a leading university would be preferable.

Applicants should at once apply for application and examination Form B. I. A. 2 either to the United States civil service commission, Washington, D. C., or to the secretary of the board of examiners as follows: Post office, Boston, Mass., Philadelphia, Pa., Atlanta, Ga., Cincinnati, Ohio, Chicago, Ill., St. Paul, Minn., Seattle, Wash., San Francisco, Cal., San Juan, P. R.; customhouse, New York, N. Y., New Orleans, La., Honolulu, Hawaii; old customhouse, St. Louis, Mo. No application will be accepted unless properly executed and filed with the commission at

Washington in complete form, with the material required, prior to the hour of closing business on August 1st, 1911.

The commission also announces examinations for candidates to fill positions as medico-chemical analyst and as food technologist. Men only will be admitted to these examinations. The time for filing applications for the first named position expires July 22d, and for the second, July 29th.

Philadelphia Association of Retail Druggists.

Reports which showed that the Sunday closing movement was making steady progress among the pharmacists of Philadelphia were among those submitted at the regular meeting of the Philadelphia Association of Retail Druggists held June 2d. M. D. Allen, a member of the executive committee from the eleventh district, announced that as the results of his interviewing a number of proprietors in his neighborhood, the majority of them had closed for a few hours on Memorial Day, and there was every indication of an increased number closing for a portion of Sunday. William E. Lee of the eighth district announced that there was only one man in his neighborhood that did not close from 1 to 6 p. m. on Sunday. He advocated every one in favor of the move, taking the initiative and closing, thereby setting a good example which, it had been shown, the majority would follow.

Another interesting report was made by Chairman A. G. Keller, of the special committee on advertising. He announced that already two strong articles had been inserted in the Sunday newspapers, showing why the public should patronize the retail drug stores in the respective neighborhoods and mentioning a few of the lines in which the service afforded at the drug store was the most reliable and indispensable. It was shown that this campaign of "booming" the drug store had already brought in new members and that it was being commented upon most favorably by both members and non-members. Still more comprehensive plans were broached by Mr. Keller.

Representative J. H. Barlow in his report brought up the recent prosecutions of small dealers in the southern section of the city who were charged with selling soda water that had been adulterated, and he advised the members of the P. A. R. D. to make sure that their skirts were absolutely clear in this respect. He submitted a copy of the Pennsylvania laws on this subject. As there was some difference of opinion as to the requirements of the law, it was decided to invite Special Agent H. P. Cassidy of the Pennsylvania Pure Food and Dairy Commission to the July meeting of the association to address the members on this subject.

Mr. Barlow also called attention to a movement on the part of the postal employees to have druggists refrain from selling stamps on Sunday with a view to eliminating work on that day for letter carriers and clerks. A letter to that effect was read from an organization of letter carriers, but it was laid on the table for thirty days. The prevailing sentiment seemed to be that the druggist would be criticised by his patrons if he should, for instance, sell them post cards on Sunday and then refuse to sell the accompanying stamps, and that it would be unwise for him to inaugurate such a move. In this connection, it was reported that it was likely that the salaries paid to proprietors of sub-stations would shortly be reduced and considerable indignation was expressed by some of the members.

A proposition to elect delegates to the N. A. R. D. conventions by districts instead of at large as is now the method was withdrawn, as it seemed to be the sentiment that interest was lacking in some of the districts, and that many of the men who were best versed in the work of the P. A. R. D. would not be elected. A change in the by-laws, relative to the number of delegates to be elected at the July meeting, was adopted. Several applicants for membership were elected and a proposition to have the association become interested in a trading stamp proposition was frowned upon as being inimical to the best interests of the individual members.

On June 23d Representative Barchfield introduced a bill in congress providing that pharmacists in the navy shall, as other warrant officers are commissioned, be commissioned chief pharmacists, and on promotion have rank, pay and allowances of chief boatswains.

William T. Hunter has opened a new store at Fall River, Mass. He calls it the Cascade Pharmacy.

DRUG STORE ADVERTISING

By M. P. GOULD, of New York

In this department some of the fundamentals of successful drug store advertising will be expounded each month. The aim is to correct errors of advertising and establish the most profitable and advisable methods of building up retail drug trade by means of the powerful influence of advertising.

The Trend of Business To-Day.

It was a matter of general news interest when one of the leading bankers of the United States, who before that had made a notable success in another line of endeavor, and after having amassed a fortune in the banking business variously estimated at from six to ten million dollars, resigned from the banking firm with which he was connected for the avowed purpose of promoting the spirit and practice of co-operation between employer and employee.

The old order of things was for the employer to pay as little as possible and sometimes to be as disagreeable as possible to his employees with the natural and logical result that the employees would be as antagonistic as they could be without losing their jobs. The result of this order of things was that the employee would give as little service as he could, while the manufacturer retaliated by giving as little wages as he had to.

Then along came some broad-minded men who won the confidence of both employer and employee. They said to the employee, for example, "Under the present system you are carrying twelve tons of pig iron a day. If you will now begin to carry pig iron exactly as we tell you to you will not work any harder than you are now working and we will pay you more wages than you are now getting." The result was that the same man could carry forty-seven tons of pig iron a day and not work as hard as he did before and could make more than double the wages that he formerly made. In another case, an apprentice, within a week after he went to work, under the new system could lay more brick than the oldest and most experienced workman had ever laid for the contractor.

Nothing could persuade men to do that extra work except belief that the people in charge were co-operating with them to produce a better day's work without requiring any more irksome effort.

The extreme high cost of living helped to bring this new order on. The magazines are full of descriptions of it; editorials on it are being written in countless number; correspondents of newspapers are talking about it; speakers at banquets and associations are discussing the question.

Let us see if there is not something of use in this proposition for the retail druggist.

Let us speak in a frank, manly and straightforward and wholly friendly way.

There is, as everybody knows, a great deal of feeling between many clerks and many druggists. Many clerks say that their employer does not pay them sufficient wages so that they can do an honest day's work. Many employers say that drug clerks are lazy, that they steal and that they are "drug fiends" and that they will shirk work whenever they get a chance.

The facts are that druggists are way above the average as employers among retailers; also, that drug clerks are way above the average as retail employees.

Whenever the druggist has taken his clerks aside and had a frank talk with them and given them a co-operative interest in his business, his business has shown such a marked increase, not only in sales but in the satisfactory

treatment which customers receive that he has been glad of his action. There are several different ways of making clerks feel that they are a co-operative part of the business.

One way, which is being followed by quite a few druggists in different sections of the country, is to incorporate and either give or let the clerks buy on a long-time basis, a share in the company itself.

Another way is to pay the clerks a proportionate percentage of the total sales of the business.

A third way is to pay the clerks a percentage of the net profits of the business.

This movement for co-operation is extending past the mere question of relations between clerks and employers.

The druggist is going to the doctor and entering into a more friendly and a more co-operative spirit of work with him. The druggist is also entering into more friendly relations of co-operation with the manufacturer. This is true of all lines of retail trade. When the manufacturer was downing the retailer as a "back-biter" and a general scamp the retailer naturally retaliated by "knocking" the manufacturer's goods every time he got a chance.

The government investigations are bringing out the fact that competition, as it develops in modern business, is not the "life" of trade, but is the "death" of trade. Consequently, the movement to-day is for competitors to co-operate in order that they may produce a better condition in every line of business.

We have already seen this condition arise among retailers where they all get together in a town to eliminate cut prices, or when they agree with department stores upon general methods of doing business.

Manufacturers, who are met half way by retailers, are very amenable to working with the retailer, using their influence to send trade to the retailer and forming a working arrangement with the retailer whereby the manufacturer's goods will get a better show and the retailer himself will get a better profit and a better deal with the manufacturer.

Carrying this question a step further, the spirit of co-operation extends to a retailer's dealings with his customers. Suppose a retailer acts towards his customers in a way which seems to say: "I am selling you these goods

The value of pure drugs and the necessary experience in compounding.

The value of medicine lies equally between the purity and power of the drugs and the method and manner of their compounding. The drugs we offer are strictly of the highest class. Our training, experience and equipment assure that all medicines will be compounded right.

Bring all your prescriptions here to be filled.

(Name and address)

to-day at this price because I want you to buy what goods you need next week of me also. I am waiting on you in this congenial, friendly manner because I want you to feel friendly toward this store. I am sending my boy out to your house to get your prescription and then sending the medicine to your house without extra charge because I want to be so accommodating that you will trade with me and use your influence in bringing other people among your friends to trade with me. I am using my best and fairest judgment to always give you what you want and never sell you something which you will regret buying, because I want you to have confidence in me and my clerks. In other words, I want to co-operate with you

Mosquitos

You can't dodge 'em—make them dodge you. Perfumed fumigators, pastilles and powders; also lotions to relieve the bites, or oils to prevent skeeters biting. Something here you want these hot nights.

(Name and address)

you need, and that I, to the best of my ability, will give you trustworthy advice." Suppose such a spirit should pervade a drug store for even one month, would not the customers begin to feel it? Would not there spring up between the dealer and his customers a spirit of co-operation, of working together, a spirit of friendly dealing, which would be to the advantage of both the customer and the dealer?

The papers are full of talk about international peace and good will. The spirit of friendliness and neighborliness is pervading the whole world. Nations want to be friendly with each other. Manufacturers want to be friendly with each other. Retailers want to be friendly with each other. The manufacturers want to be friendly with the retailers, retailers want to be friendly with manufacturers. Customers want to be friendly with retailers and retailers want to be friendly with customers. When this spirit ripens to its full fruition, then we will have a finer business, a more profitable business, a more satisfactory business for everybody—for the employee—for the employer—for the customer.

This is not Utopian. This is not a dream. This is not mere foolish theory. The world is moving rapidly. A few years ago the "peace advocates" were thought to be harmless fanatics. Now the man who does not believe in international peace is considered queer. A few years ago there was a great deal said about class hatred. There is a great deal of class hatred left, but there is not so much as there was. There has been a great deal said about capital and labor. There is a better spirit toward labor to-day among capitalists than there ever was before.

In England there are co-operative societies which handle hundreds of millions of dollars worth of goods every year, that furnish supplies to millions of families; they are having an enormous effect upon trade and upon prices. Advocates of the same system are at work in this country with the hope of establishing such societies here. No doubt, in a small way, there are some already established.

The head of the steel trust says that the time is surely coming, if not already here, when the government must regulate the prices of great commodities.

As the United States matures there undoubtedly will not be the possibilities of getting rich quick, of making fortunes out of a shoe string, the same as there has been in the past. There will be a kindlier spirit toward labor. Labor will be recognized and given a co-operative interest in the companies where it is employed.

Capital, that is employers, will not expect to make such a large profit; the government insists that the great corporations shall make only a fair return from the money invested. Some great corporations are reducing their charges to the public because they figure that when they have earned a certain percentage like eight or nine per cent. on their total capital that is as much as they should earn. Indeed, some of the great corporations in manufacturing seem to feel that they have had a good year if they earn six or seven per cent. on their capital.

Why is this question being discussed in this department?

First, because it is a live question which every retailer ought to be interested in; second, because it represents a business policy which the far-sighted, progressive retailer should consider carefully. It is the man who looks far ahead and considers policies who is prepared to take advantage of the things which make for progress and profit in the future.

The retailer who organizes his business upon a basis

in giving you the best drug services that can be had in this town. I want you to know that my prices are as low as should be reasonably charged for the goods, and, in turn, I want you to feel that you can come to me and ask me frankly about any drug which

whereby the work is done by loyal, enthusiastic employees is far ahead of the retailer whose employees hate him and who work indifferently or antagonistically to his interests.

The retailer who, in one way or another, gets his employees to feeling that they have a co-operative interest in the success of his affairs has made a big step in advance. Then, if that same retailer gets his customers to feeling that they have an active interest in his business he has made a still greater advance. Also, if that retailer can work with manufacturers so that they have a distinct interest in using their influence in his behalf he has made still greater progress. If he can use his advertising to work out this spirit of co-operation, this feeling of good will toward all and can permeate his advertising with that spirit, then his advertising will be remarkably successful.

Beauty Behind the Counter.*

Coming over from New York the other day I bought a New York paper and looked over the want ads. There's sure a heap of fun hearing people tell what they want. And maybe they don't want a lot!

Here's an ad. I ran across and cut out:

WANTED.—By high-grade confectionery, ice cream and bakery, two young ladies to wait on trade. Must be of handsome appearance. No experience necessary if other requirements are satisfied. Address X 2, Herald.

In other words, what's wanted was a couple of peaches who could travel on their looks; made no difference whether they knew their business or not.

Gee whiz, what a fearful mistake you're making Mr. X 2! Take it from me, what you're looking for, if you want clerks you can depend on, are girls that are clean, but homely. Peaches "of handsome appearance" may be good to look at; but put 'em to work and they rot out in five minutes.

I've talked with thousands of candy men on the clerk question, and I've never found one that didn't agree with me. You can

say what you please—when you want real work done, the real pretty clerk is about as good to have around as a new baby. The fellow that hires 'em (and the fellow that marries 'em, while I'm on the subject), has something that looks like a peach but tastes like a lemon.

You can't expect many of the girls you hire as clerks to take a very deep interest in the business, but you can expect 'em to take some. I never knew one of these pretty things to take any interest in anything except puffs and their steadies. Of course there are exceptions to everything.

One of the

Taking Pictures

SNAP! and the picture's taken. A good camera—inexpensive but of reliable make—takes pictures easily, and you can do the work.

Nature at her best invites you to record her beauties. You want pictures. We'll sell you a camera and all supplies; pay as much or as little as you wish.



(Name and address)

* From the Southern Pharmaceutical Journal.

prettiest fairies I ever saw in my life, a candy man in Williamsport, Pa. hired as clerk about a year ago. She was sure a queen.

"By gravy, old man!" I said to him the first time I saw her, "Where did you get her? She's the richest thing I've seen since the war!"

"Ain't she all right?" he said in great delight. "Won't she draw trade, eh?"

"Well, she may draw it," I said, "but the chance is the homely ones will have to wait on it. That is if you want to keep it. I don't take much stock in these beauties."

I saw that girl several times after that and after awhile I got so I talked to her. One day while I was waiting for the boss and trade was dull, I hit up a talk with her to see how much she knew about the business.

When we had this talk she had been there six months. Anybody with a spoonful of brains and any interest at all, could learn something in that time, couldn't they? Well, she hadn't learned anything. She knew that the chocolates in this case were 40 cents a pound, and the candied fruit was 80, but outside of things like that, that she simply had to know, she didn't know a blamed thing and didn't want to.

To see if she had any ideas at all, I asked her how many candy stores there were in Williamsport.

"I don't exactly know. Quite a number."

Mind you, she'd lived there all her life.

"Which is the best section of the town for this business?"

"I don't know as I could say. I guess one's about as good as another."

"Is there a good trade for high-class goods in the town?"

"Oh, I don't know." (Yawn in my face.)

And she didn't know. She didn't know a darned thing and she didn't care who knew it.

"How's society here?" I asked her then, "Lively?"

Maybe she didn't come to life!

"It's fine!" she said, "there are perfectly lovely balls and parties going on all the time. I was out to one last night. The very best people in the town were there and I had a lovely time. I'm going to another next Tuesday night that will be fine, too. I belong to ——" And more of the same. And more of the same. And more of the same.

That pretty little creature simply sold so much of her time a day. She didn't sell an atom of her interest, and she didn't give any of it away.

Flavoring Extract Manufacturers' Association.

The second annual meeting of the Flavoring Extract Manufacturers' Association of the United States was held at Chicago June 8th and 9th, President W. M. McCormick in the chair.

Among the resolutions passed were the following: That the association express its commendation of the work of the National Civic Federation in establishing throughout the various States the committee on uniform laws whose efforts are directed to the attainment of uniformity of legislation as to bills of lading, warehouse receipts and negotiable instruments; that the association especially endorses, and that it will lend every effort to secure in the various States uniform legislation as to pure food and drug laws, which State legislation shall be in conformity to present national pure food and drugs laws; that every effort be made to have flavoring extracts included in the tariff schedule which provides for a rebate on alcohol used in perfumery and kindred preparations, and also include alcohol used in the arts and sciences; that the association place itself on record as strongly favoring a definite standard for vanilla.

Mr. McCormick was re-elected president; the remaining officers chosen being, first vice-president, John L. Clawson, of Philadelphia; second vice-president, A. E. Claus, of Brooklyn; third vice-president, S. J. Sherer, of Chicago; treasurer, Robert E. Heckin, of Cincinnati; secretary, Dr. S. H. Baer, of St. Louis. Executive committee—C. E. Foote, of Jackson, Mich.; Norman Peck, of Indianapolis; and Frank L. Beggs, of Newark, O.

The next meeting will be held at Baltimore.

"Man's a funny proposition," soliloquizes the Boston Transcript; "when he reads a medical book, he fancies he has every disease described; but let him read the work of a moralist and all the faults pointed out he sees not in himself, but in his neighbor."

PRACTICAL FOUNTAIN HELPS.

Picayune Profit and Plutocratic Proceeds.

"Oh, the soda fountain attracts a picayune sort of trade," said the man who believes in dignified pharmacy and a genteel passing out of 25-cent soap and \$1.50 hair brushes.

So it does, in a sense, but that is not the way the soda-water druggist figures it. He says: In a family of five people—father, mother and three children—of ordinary means, maybe not more than a couple of hair brushes are bought in a year, and three or four cakes of soap will last a month or so. Maybe a whole year will go by without a case of sickness in the family serious enough to require the attention of a physician and the filling of a prescription. Of course there will be a little witchhazel water, "magnesia," toothache drops, cold cream and the like to be bought every now and then, all of which counts and goes to swell the monthly receipts of the store. On the other hand, really A1 soda water and sundaes, with hot chocolates, bouillons and the like in cold weather, appeal to the whole family every day in the year, and if a fountain and service are made attractive, the appeal will result in a sale once or twice in a day to nearly every one of its members—say, for short, will bring in receipts of 33 1/3 cents a day on an average all the year 'round. This means a profit of, perhaps, 20 cents a day for 365 days, amounting to \$73. Not only this, but the family will also buy its drugs, toilet articles, etc., from the store to which it goes for its soda, and the fact that its various members have a habit of dropping in once or twice a day results in the sale of a good many things which would not have been thought of otherwise.

This argument may sound somewhat Col. Sellersque to many, yet some who have "got them coming" to their fountains may object to the figures on account of their over-conservatism.

Does soda water pay?

Well, it all depends—. Does running a street railway system pay?

As Soda Water Is Served at Danville, Va.

W. M. Brydon, manager of the West End Pharmacy, Danville, Va., was asked by a CIRCULAR representative, "Do you think making a specialty of your fountain business has helped or hindered your general drug business?" "Most decidedly it has helped," he replied, "a great many of our customers who began as soda-water patrons have become good and permanent patrons of the prescription department. In fact, it works both ways—a person waiting for a prescription will almost invariably order a drink, especially if the fountain looks attractive."

AN UP-TO-DATE FOUNTAIN ITS OWN BEST ADVERTISEMENT.

"Being in the residential district," continued Mr. Brydon, "we consider the fountain and fixtures themselves our best advertisement. Everything connected with our soda-water department is the best, from the fountain down. And we have not been disappointed in the appeal it makes to the trade. And in the drinks served we follow the same policy, paying more attention to quality than variety. No fountain can be conducted successfully in a residential district without ice cream—good ice cream is the product most in demand, and seemingly hardest to get; so we have installed an electric plant in the basement and make our own supplies of this delectable confection, using only fresh, pure cream in the process. We never serve an ice cream with canned or preserved fruit—if we can't get fresh fruit we don't serve fruit cream at all, but suggest something that may be made of the plain cream, as a nut taffy or a sundae, as a substitute."

DIRTY MENU CARDS.

Mr. Brydon mentioned one point only in regard to cleanliness: he said that often druggists who are scrupulously clean about everything else will be careless about their menu cards; that nothing is more offensive to a customer than a fly-specked or otherwise soiled card from which to make her order; and that unless the supply of cards is large enough to justify the immediate retirement of such of them as may become in the least thumb-soiled, it is very much better to dispense with that feature altogether.

Mr. Brydon's idea is that, in the end, nothing pays but the best.

Fresh Fruit Confections.

During the summer when fresh fruits of all kinds are easily obtainable, beverages and sundaes in which these aids play an important role are much to the fore. Some suggestions apropos follow:

You Know.

Crushed strawberries, 1 tablespoonful; crushed raspberries, 1 teaspoonful; crushed pineapple, 1 teaspoonful; grape-juice syrup, 1½ ounces; vanilla extract, a small dash; milk, 1 ounce; ice-cream, 1 tablespoonful; crushed ice, enough. Shake well and fill the glass, using the fine stream. Serve with a spoon.

Orchard Sundae.

Mix in a bowl equal parts of crushed cherries, crushed peaches, and crushed blackberries, and dilute to a proper consistence with grape juice. A ladleful of this is to be poured over a portion of vanilla ice cream, and the whole topped with whipped cream and a cherry or berry.

Variety Sundae.

On a rather large, flat sundae dish place a portion of vanilla ice cream, making with the spoon as many depressions in the same as there are crushed fruits to be served with it. In each depression pour a small ladleful of crushed fruit, a different kind in each. Garnish with whole fruit, and be sure to charge enough to pay for the confection and the time consumed in preparing it.

Peach Melba.

In a sherbet glass place a ladleful of sliced peaches; add a portion of vanilla ice cream and cover the top with sweetened whipped cream. On one side of the dish place a spoonful of chopped nuts, and cap the whole with a berry or cherry.

Raspberry Juice.

Select raspberries, 1 quart; sugar, 12 ounces; water, 3 pints; juice of 1 lemon; juice of 1 orange. Mix and stir until the berries have yielded up their juice, and the sugar is dissolved, then strain through muslin. Serve "straight," with cracked ice.

Summer Delight.

Vanilla syrup, 1 ounce; crushed strawberries, a ladleful; shave ice, to fill a mineral-water glass. Top with whipped cream.

Peach-and-Cream Soda.

Mix in a bowl, peach syrup, 2 ounces; orange syrup, 6 ounces; vanilla syrup, 9 ounces; ripe peaches, but fine, 8 ounces; cream 24 ounces. Put a small ladleful of this in a glass and draw the soda in the usual way.

Fruit Smash.

Juice of ½ orange; juice of ½ lemon; pineapple juice, ½ ounce; powdered sugar, 2 tablespoonfuls; crushed ice, enough. Fill the glass with carbonated water, and stir well.

What Chocolate and Cocoa Are.

Food inspection decision 136 recently issued by the department of agriculture, Washington, defines the meaning of certain names applied to chocolates and cocoas—the word "cocoa" being the one used by the department where druggists sometimes use "cacao." According to this decision, the names "chocolate," "plain chocolate," "bitter chocolate," "chocolate liquor," and "bitter chocolate coatings," are applied to the solid or plastic mass obtained by grinding cocoa nibs without the removal of fat or other constituents except the germ, containing not more than 3 per cent. of ash insoluble in water, 3.5 per cent. of crude fiber, and 9 per cent. of starch, and not less than 45 per cent. of cocoa fat.

"Sweet chocolate" and "sweet chocolate coatings" are terms applied to chocolate mixed with sugar (sucrose), with or without the addition of cocoa butter, spices, or other flavoring materials, and contain in the sugar and fat-free residue no higher percentage of either ash, fiber, or starch than is found in the sugar and fat-free residue of chocolate.

Cocoa, and powdered cocoa, are terms applied to cocoa nibs, with or without the germ, deprived of a portion of their fat and finely pulverized, and contain percentages of ash, crude fiber, and starch corresponding to those in chocolate after correction for fat removed.

Sweet cocoa, and sweetened cocoa, are terms applied to cocoa mixed with sugar (sucrose), and contain not more

than 60 per cent. of sugar (sucrose), and in the sugar and fat-free residue no higher percentage of either ash, crude fiber, or starch than is found in the sugar and fat-free residue of chocolate.

Cocoa nibs, and cracked cocoa, are the roasted broken seeds of the cacao tree freed from shell or husk.

Milk chocolate and milk cocoa should contain not less than 12 per cent. of milk solids, and the so-called nut chocolates should contain substantial quantities of nuts. If sugar is added, for example, to milk chocolate, it should be labeled "sweet milk chocolate," "sweet nut chocolate," etc.

When cocoa is treated with an alkali or an alkaline salt, as in the so-called Dutch process, and the finished cocoa contains increased mineral matter as the result of this treatment, but no alkali as such is present, the label should bear a statement to the effect that the cocoa contains added mineral ingredients, stating the amount. Cocoas and chocolates containing an appreciable amount of free alkali are adulterated. Cocoa not treated with alkali is held to be not soluble in the ordinary acceptance of the term. Cocoa before and after treatment with alkali shows essentially the same lack of solubility. To designate the alkali-treated cocoa as "soluble" cocoa is misleading and deceptive.

Food-and-Drug Stores.*

Seemingly the progenitors of the food and drugs act knew what they were about in harnessing up those two lines of merchandise together. If you don't believe it, look at the lunch counter of city drug stores. (Perhaps in the course of a few years we shall be accustomed to speaking of them as "Food and Drug Stores.") Just the same, we are not shedding any tears over that part of it. It shows that druggists are about as quick on their feet as the best of 'em in the commercial arena. Just as the sad-visaged prophets of disaster and calamity are ready to announce that the druggist has at last been counted out, he comes back with a smile and a new side line and goes at it harder than ever.

We might all of us prefer that these ham-and-egg prescriptions be omitted, but the first thing is to make a living. You may call this the doctrine of an opportunist. Then be it so. A good live, well-fed opportunist is happier than a dozen hungry martyrs any day.

The Wonderful Bettes Store and Its Fountain.

One of the best appointed drug stores in the country is the Bettes Pharmacy, Jacksonville, Fla. Charles C. Bettes, who is still on the sunny side of fifty, rose from a clerkship in the store of Dr. H. Robinson, until he became the head of one of the largest retail drug corporations in the South.

The thorough treatment given to every part of the business of this concern shows immediate results in the soda department. It is a rule of this store that every utensil used about the fountain, including syrup containers, must be thoroughly washed and sterilized each day.

When Mr. Bettes put in expensive fixtures some years ago, the wisacres shook their heads and said he was too far ahead of the times. But he wasn't, for his business has grown to such an extent that recently he took out the fixtures which had been the talk of the city and put in better ones.

Even though his patience be stretched up to the breaking point, or his dignity ruffled almost beyond endurance, if by smiling and passing out a pleasant word or two the dispenser can send the customer away in such a good humor that he will be glad to come back, isn't it worth doing? Let the man who does the buying for the soda department reflect a moment: Does he recall how sharply he spoke to a traveling salesman the other day? And did the salesman answer him in the same tone? And if he had, would the buyer have given him an order? Or a welcome the next time he called? We are all human—buyers and sellers, soda customers and dispensers, and a soft answer turneth away wrath now as much as it ever did.

It is bad policy to insist upon giving the customer more soda than the glass will hold, as he does not lick the holder anyway, and more people are offended by sloppiness at the fountain than always speak of it.

* From the New Idea.

The Approaching A. Ph. A. Meeting.

For its fifty-ninth annual meeting the American Pharmaceutical Association will go to Boston, a city rich in historical interest and long the recognized home of American letters. Some of the most stirring events of the war for American independence took place at or near Boston, and there lived and labored such men as Longfellow, Whittier, Emerson, Hawthorne, Lowell, and a dozen others whose names are almost as well known in literary circles; and here, over the drug store of the late Theodore Metcalf, the charming Dr. Oliver Wendell Holmes had his office and spread his geniality.

There is always a good word on tap for "Southern hospitality" and for "Western hospitality," and it is deserved; but druggists who attended the meeting of the National Association of Retail Druggists at Boston in 1905 know that there is such a thing as Eastern hospitality, too, and many of them would spell it with a big H. Probably there never had been such entertainment of a druggists' convention previous to that meeting, and if the Boston brand of hospitality has been excelled at any subsequent meeting of druggists, the news of the accomplishment did not get far from home.

The date of the approaching meeting is August 14th to 19th, inclusive, and the association's headquarters will be at the Hotel Vendome. Not only the druggists, but the business men generally of Boston, and some of her organized bodies and public officials, are going to try to make the forthcoming meeting a record-breaker—if not in size (a matter which they can not control), at least in interest and in the pleasure experienced by those in attendance. In charge of the plans and arrangements is C. H. Packard, local secretary. Associated with him for certain designated works are J. Arthur Bean, entertainment and reception; F. F. Ernst, telephones; E. O. Engstrom, pharmacy boards; E. H. La Pierre, accommodations and information; and James F. Finnerton, finance. John G. Godding, president-elect of the association, is, of course, actively at work to make the meeting all that it should be, and that the ladies in attendance will be well provided with entertainment is assured by the fact that Mrs. Godding will make them her special charge. The treasurer of the local committee is J. W. Baird.

Members of the association who do not go to Boston will "miss it"; and those who ought to be members and are not should go to Boston and join.

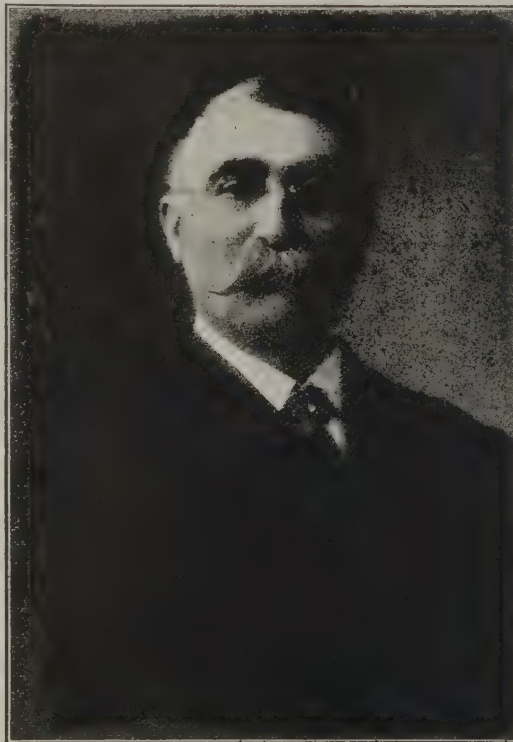
J. G. Godding, President-Elect of the A. Ph. A.

When John Godding, drug clerk, aged twenty-two years, joined the American Pharmaceutical Association at its meeting held at Boston in 1875, he doubtless little dreamed that when the association held its next meeting in that city it would inaugurate him as its president. But the program for the Boston meeting next month includes just this feature, Mr. Godding having already been elected to that office by the ballots of his admiring fellow members. "Thirty-six years is a long time to wait for recognition," some drug clerk may say, and he is right, provided that "recognition" is what the one who waits is striving for; but to a man who goes quietly about his business and does things thoroughly as a matter of course, getting his reward out of his sense of duty well performed, "recognition" is but an incident and comes as an awakening rather than as a realization of well-nursed hopes. Such a man is the subject of this sketch.

John Granville Godding was born at Gardiner, Me., March 28th, 1853, and so his fifty-ninth birthday will fall during his term as chief executive of the leading pharmaceutical society of America—perhaps of the world. He attended the schools of his native town, and after a time at the high school there took a special course in Latin at Boston. When only eighteen years of age he entered upon his career as a druggist by taking a clerkship in the store of Edward S. Kelley, of Boston. While there he pursued the course at the Massachusetts College of Pharmacy, and was a member of its sixth graduating class—the class of '74. He remained with Mr. Kelley until 1878, then went to Philadelphia and worked a year for H. A. Borell. The attractions of "the Hub" proving too strong for him to resist, he went back and took a position with Levi Tower, Jr., which he held until 1884, when he and Mr. Tower formed a copartnership under the firm name of J. G. Godding & Co., and opened a store at Dartmouth and Newberry streets. This corner is still his business address. After

fifteen years as a partner, Mr. Godding became sole owner of the store, but he still retains the old name, with its "& Co." In 1907 he opened a branch at Massachusetts avenue and Beacon street, which he conducts under the firm name. These two stores, while modern in equipment and under progressive management, depend for their support upon a clientele which is not attracted by gaudy trappings and catch-penny methods. They are in sections in which reside some of the most substantial of Boston's population, and in them is done in a quiet way a considerable amount of profitable business.

Mr. Godding is what is known in some circles as a "powerful jiner," but of course no such expression as that ever disturbs the atmosphere of Boston's classic "back-bay" district, in which the two Godding stores are situated. There it may be said that he manifests a decided predilection for



JOHN G. GODDING.

operating in unison with his fellow beings to secure benefactions which usually may not be expected as a reward to individual effort. Be that as it may, Mr. Godding, in addition to his long connection with the American Pharmaceutical Association, was one of the organizers of the Massachusetts association in 1882, and was the first treasurer of the Boston Association of Retail Druggists, to which office he was more than once re-elected. As a member of the Massachusetts College of Pharmacy, which he joined thirty years ago, Mr. Godding has done some of his best work for his chosen calling, having served that organization as a trustee since 1885 and as its treasurer since 1890. In the latter office he is nominally the custodian of a fund larger than that owned by any other college of pharmacy in the country, this being the Potter bequest of nearly a quarter of a million dollars, which is managed by a board of five trustees, of whom Mr. Godding is one. In the alumni association of the college Mr. Godding has also been quite active, having filled nearly every office in the society, including that of president. He is also an N. A. R. D. man and is a member of the United States Pharmacopœial Convention.

All the activities of this even-tempered, forceful man are not along pharmaceutical lines, for he is a Mason (and a Knight Templar), a member of the Boston Chamber of Commerce, the Middlesex Club (political), the National Automobile Association, and other organizations. Busy though he is, Mr. Godding finds time to read and profit by what he finds in the journals, among those for which he sub-

scribes being no less than a dozen devoted to pharmacy and two to medicine.

With all his duties and obligations, however, Mr. Godding has time for recreation and a happy home life. Mrs. Godding, who is as well known in national pharmaceutical circles as her husband, is his helpmeet in fact as well as in name. She aids him in the management of his business, and then when vacation time comes she goes with him to their lodge, built of logs, in the Maine woods at Rangeley Lakes. When at home they are in a cozy and comfortable house at Brighton, a part of the city of Boston. They have no children living.

When asked what he proposed to do as chief executive of the American Pharmaceutical Association, the president-elect was becomingly modest and declined to make any prediction, thus emphasizing his characterization of being a man of deeds rather than words. But we shall see what we shall see, and those who know him best will be the most disappointed if he does not add new laurels to his crown by the way in which he handles the new work which his friends have put upon him through no solicitation of his.

Degrees for Two Captains of Industry.

Recently two prominent figures in the drug world have been selected by universities for high distinctions. Some particulars concerning the men and the distinctions are here given:

Samuel W. Fairchild.

At the one hundred and fifty-seventh commencement exercises of Columbia University, held on June 7th, honorary degrees were conferred upon "eleven men of distinction" selected by reason of special accomplishment from the various fields of science, law, medicine, finance and religion. The subject of this sketch was one of the eleven. President Nicholas Murray Butler presented him with his diploma in the following words: "Samuel William Fairchild, sometime president of the New York College of Pharmacy, always eager in working for the interests of that useful institution and in promoting measures to safeguard the purity of food and drugs, I gladly admit you to the degree of master of science in this university."

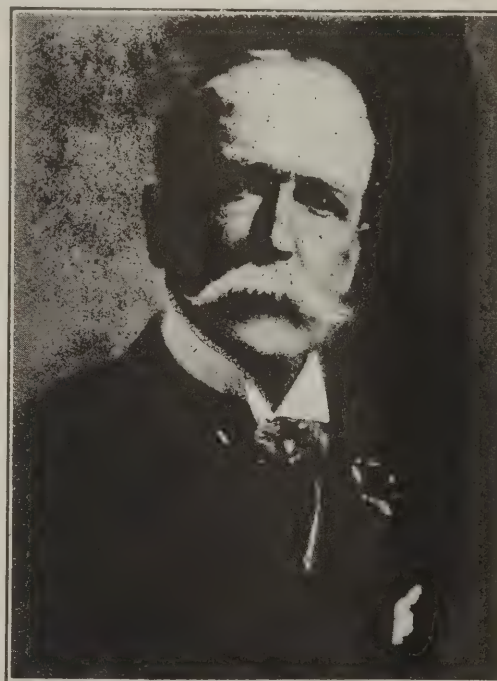
Going back a few years, to February 4th, 1908, this same Samuel William Fairchild was one of the "five distinguished men from five different sections of the United States" to receive from the Philadelphia College of Pharmacy the highest honor in its gift, "the title of master of pharmacy, in recognition of distinguished attainments in the pursuit of the sciences connected with the profession."

The bestowal of these honors upon Mr. Fairchild has given genuine pleasure and satisfaction to his hosts of friends in the pharmaceutical world, not only in a personal sense as a deserved tribute to a friend but more broadly as indicating that pharmacy is coming into its own, is winning its way to a more important place among the arts and sciences. And Mr. Fairchild is thoroughly in sympathy with this higher ambitious spirit of pharmacy, having contributed materially to its development. Since his graduation by the Philadelphia College of Pharmacy, class of '73, he has worked unceasingly to promote the best interests of his profession, to dignify and advance the status of pharmacy as an art, a science, a business. Nor does he work as a theorist or an idealist, as he knows pharmacy in all its branches; he began to acquire practical knowledge of it in a retail drug store in Philadelphia when he was "working his way" through college, and after he was graduated he was for a time with Caswell, Hazard & Co., then the leading retail druggists of this city. Mr. Fairchild has "traveled" for a wholesale drug house, and has been in the retail drug business as partner of his brother, Benjamin T. Fairchild, who was even then working on the products that were to be known later as the "Fairchild" specialties. When the Fairchild Brothers entered the scientific and commercial world as manufacturing chemists, the one whom we are now discussing became the financial and general business manager of the firm, and these special departments of the house of Fairchild Brothers & Foster have all these years remained under his direct control and supervision.

While Mr. Fairchild is a loyal son of his alma mater and always ready to respond to any appeal in her behalf, he has long been actively interested in the College of Pharmacy of the City of New York, and served as president of that college from 1890 to 1896—a most notable and progressive period in the history of the institution. Dur-

ing these six years, the old building in East Twenty-third street, badly situated, unsanitary, poorly equipped and carrying a mortgage, was redeemed from debt and sold, a site was secured in West Sixty-eighth street, and a new building, the present home of the college, erected. It was said at the time that this was the first building in the United States that was planned, built and equipped especially for use in the teaching of pharmacy, and in "commodiousness and equipment it was not equaled by any college of pharmacy building in the country, or elsewhere."

A general reorganization of the work and affairs of the college was also effected during Mr. Fairchild's presidency. Its scope of instruction was widened and the most approved teaching modern methods and facilities were introduced. All this was accomplished largely through the efforts of its presiding officer and in the face of special difficulties at a time of financial depression and uncertainty ascribed to political agitation. Mr. Fairchild made



SAMUEL W. FAIRCHILD.

direct personal appeals for subscriptions, negotiated loans when necessary, exerted constantly a harmonizing influence upon the various elements represented in the membership of the college, and kept every force steadily directed toward the desired end. Upon his retirement from the presidency in 1896, the *Alumni Journal* of the college referred editorially to his "long, trying, faithful service of six years, during which great things have been accomplished for the college," and said, "He carries with him the gratitude of the whole pharmaceutical world for the success which has attended his efforts, and the highest esteem of all those whose privilege it has been to be associated with him in his work." The former president has continued to work for the welfare of the college and was one of those who were instrumental in bringing about its affiliation with Columbia University.

Mr. Fairchild keeps in close touch with pharmaceutical affairs all over the world, as a reader of the current literature of the calling, and through the business connections of his house. In England he has established an annual scholarship for students in pharmacy, the awarding of which is under the direction of trustees, men of high attainments in the profession.

Mr. Fairchild's interests and activities are wonderfully varied—one might almost say universal. Art and science, military, political, educational and financial affairs all appeal to him. His executive ability is well known and so it is that he is induced to serve on many city "committees" and "commissions"—for entertaining visitors from foreign lands, for planning and assisting at celebrations, etc., and he has been chosen to represent the city on spe-

cial occasions, having been one of the commissioners from New York at the Columbian Exposition at Chicago in 1893. He also has been for many years a member of the Union League Club of New York, which he has served on many important committees and as vice-president. At the last annual meeting of the club he was elected its president. This is no inconsiderable honor, since the Union League Club is second to none in the country in political influence and historic interest.

It may also be said of the versatile man now under consideration, that he is fond of outdoor life, is a veteran of the seventh regiment, national guard, State of New York, a "Son of the Revolution," a "Pilgrim," a member of the Chamber of Commerce of New York; that he is a member of the Metropolitan Museum of Art; was one of the incorporators of the Bronx Botanical Gardens; and is a member of the Metropolitan Club of New York, the Metropolitan Club of Washington, the Virginia Club of Norfolk, the Devonshire Club of London, and the Travelers of Paris; that he

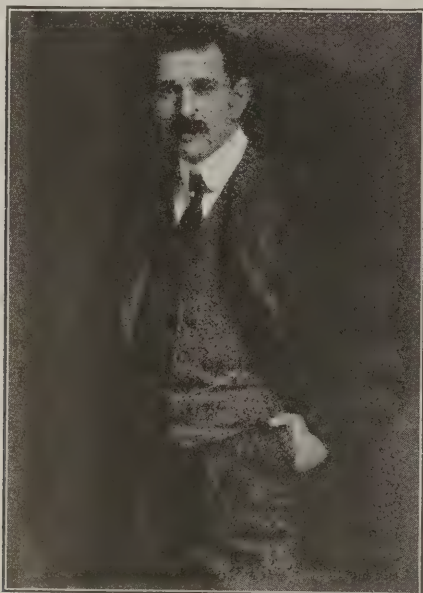


Photo by Pach Bros.

HERMAN A. METZ.

is a trustee of the Bowery Savings Bank, a director of the Market and Fulton Bank, a member of the Chamber of Commerce, a vice-president of the Sevilla Home for Orphan Children, a trustee of the Fordham Home for Incurables, is president of the Oil, Paint, Drug and Allied Trades Republican Organization, and many other charitable and civic societies; and that he is at all times interested in everything which make for better citizenship and better manhood.

Perhaps a few words of a personal nature would not be out of place here: The temptation to say them is strong, for Mr. Fairchild's personality is interesting far beyond that of the ordinary man. He says much in a single sentence; sees much at a glance; goes quickly to the heart of things. "Do it now," "Cut it short," are mottoes in plain view on his desk—and they mean business. Yet Mr. Fairchild is neither unkind nor abrupt; even his reproof is tempered with consideration or with a dash of humor that takes away the sting, for he is humorous to a delightful degree. That he is kindly, sympathetic, warm-hearted, his employees and all his other friends know—yes, his employees are his friends.

Mr. Fairchild is of English ancestry, directly descended from the Thomas Fairchild who came from England in 1632 and settled at Stratford, Conn.; and in that little New England town he spends at least one day of every week with his mother at the old home of the family, his birthplace.

It would not be fair to Mr. Fairchild to reckon his age according to his accomplishments. He is a young man, distinctly of this day and generation, erect, alert, keenly aware of all that is going on, and his characteristically vitalizing influence is felt in many directions that lead to

progress and to ways of making the world a better and happier place to live in.

Herman A. Metz.

At the annual commencement exercises of Union University held at Schenectady recently, the degree of Doctor of Science was conferred upon Herman A. Metz, of this city. Dr. Metz is a well-known figure in drug and chemical circles and an example of what energy and a determination to "get there" can do for a young man.

He is a native New Yorker, having been born in this city October 19th, 1867, where he received his early education in the public schools, finishing, however, at the Newark High School in New Jersey. He began his business career as an office boy in the establishment of P. Schulse-Berge, which later became the corporation of Victor Koechl & Co., dye and chemical importers.

While employed young Metz studied chemistry at Cooper Union, and was graduated with honors. Hard work brought him promotion and he became successively, laboratory assistant, chemist, city salesman, traveling salesman, and organizer and manager of branches in Boston and Chicago. He was made vice-president of the concern when he was only twenty-seven years old, and six years later became its president and virtually its owner.

In 1903 to divide the pharmaceutical and chemical, and dye-stuff branches of the business, two corporations were formed, Herman A. Metz & Co., and the Consolidated Color and Chemical Company, of both of which, as well as of many others, he is president.

In addition to his exceedingly active business career Dr. Metz has found time to take part in political affairs, both State and national. He was elected comptroller of the city of New York in 1905 and held that office for four years during the McClellan administration. He has also served the city in various other capacities, and in addition is a member of many organizations, fraternal, athletic, social and commercial.

Two Baltimore Notes.

Hynson, Westcott & Co. will have one of the largest as well as most attractively equipped stores in Baltimore after improvements in contemplation have been completed. The firm intends to take in the lot adjoining, the building on which will be replaced by a new one. A front, uniform in design with the one on the new edifice is to be erected on the corner, and both buildings will be carried up to a height of four stories. The firm has leased both buildings for a term of years and will occupy all except the second floor. The prescription department will be taken care of down stairs, instead of being on the second floor, as at present, and the third and fourth floors will be devoted to laboratory processes, the operations of the firm in this respect being largely extended. The store will occupy a space 40 by 60 feet, and new furnishings will be installed, every detail being arranged in conformity with the idea of conducting an ethical pharmacy.

Dr. E. F. Kelly, for about eight years with Sharp & Dohme, most of the time as superintendent of laboratories, has connected himself with the Burrough Bros. Manufacturing Company, and will be active along lines similar to those pursued in his former position. In addition he will become a member of the faculty of the department of pharmacy, University of Maryland, taking charge of the pharmaceutical laboratory there. Dr. Kelly is a graduate of the Maryland College of Pharmacy and has been for some years secretary of the Maryland Pharmaceutical Association, as well as of the Baltimore branch of the American Pharmaceutical Association.

Maybe he was sarcastic, this old druggist, and maybe he saw several inches beyond his nose, but this is what he said: "The brush counter and candy department is getting to be more important in the drug business than the drugs themselves. Nowadays druggists can sell 'patents' and semi-'patents' at less than cost as a bait for their food department." As people grow wiser they give "patents" and semi-"patents" a wider berth, and depend more for health upon happiness and good, pure things to eat and drink.

Says an Erie (Pa.) newspaper: "Three surgeons were called to prove that he would always be a sufferer from chromatic epilepsy." Did he believe it?

Kings County Society.

The annual meeting of the Kings County (N. Y.) Pharmaceutical Society was held at Brooklyn, June 13th, at which time the roll of members received an addition of seven new names and was lessened by the deletion of the names of six members who were dropped on account of arrearages in dues.

With Vice-President Douden in the chair the president, J. H. Rehfuß, read the annual message of his office. He referred with pride to the condition of the society's affairs which flourished despite the competition of a number of other pharmacal organizations of recent birth. It was his opinion that the society was not adequately represented among the members of the New York Board of Pharmacy and he advised that efforts be made to better this situation. The report comprised also a brief summary of the legislative and propagandic work prosecuted during the year and the continuation of the propaganda in behalf of official medicaments was urged.

As president of the Brooklyn College of Pharmacy, Mr. Rehfuß praised the faculty of the institution to whom he said was largely due the gratifying prosperity of the college. He did not favor the proposition to unite the college with other educational institutions of the city to form a university. Mr. Rehfuß made the suggestion that the earnings accruing from the funds of the college not used for the extension of the equipment be applied to the establishment of free scholarships. In conclusion he thanked his colleagues and expressed a desire to be permitted to retire from the presidency—he had served four terms.

Treasurer Adrian Paradis reported that during the year the society had collected \$950 from its members and had a balance of \$345.68 in the treasury. The college funds had been increased by \$25,772 collected from students during the year; the expenses of the college had been \$20,042.59, of which \$15,988 was paid to the faculty; the institution was free from debt and had in its treasury \$12,793.68.

Secretary A. E. Hegeman reported that the society had 469 members only twenty-seven of whom owed any dues. During the year thirty new members had been acquired, six members died, eight resigned, and twenty-one were dropped from the rolls.

For the committee on legislation Dr. William Muir reviewed at length the year's activity in law-making circles. He told of the efforts of the local board of health to restrict the sale of narcotics, the measure in the legislature aimed at lessening the hours of clerks' employment, the Spielberg anti-premium bill, the new law restricting the sale of hypodermic syringes and needles, the O'Neil bill to limit the powers of local commissioners, the Pollock bill to lower the qualifications for membership on the board of pharmacy, the Brennan bill to tax sellers of grape juice, the Shifferdecker bill relating to containers for poisons for retailing, the Turley bill anent the identification of the patient, and the Foley bill to admit certain persons to the practice of pharmacy. He also referred at length to the arraignment of druggists in the columns of a local paper and the Turley bill which was the result. And he characterized as impracticable the Foster federal bill providing for the stamping of narcotics, referring also to the Sherley stamp-tax measure.

In conclusion he remarked that the year had brought about closer co-operation among the various local organizations in legislative considerations.

C. E. Heimerzheim reported for the committee on trade matters which had through a detail man spread the propaganda of open-formula medicines among over 800 physicians of the city. The committee had distributed about 400 copies of the Physician's Manual of the U. S. P. and N. F., as well as many samples of official preparations. In addition the members of the society had been furnished with propagandic postal cards to be sent to physicians; all at a total cost of \$560.

This committee had taken up the question of increased commissions on telephone calls, but had no definite accomplishment to report.

Otto Raubenheimer, chairman of the committee on pharmacy, reviewed the offerings of papers made during the year, and told of the progress of the revision of the Pharmacopœia and the National Formulary. The next Pharmacopœia, he opined, would be issued in not less than three years.

Dr. Muir brought up the question of offering to the New York State Pharmaceutical Association a free scholarship

in the name of the society. In his opinion to do so might be advisable if some provision was made so as to preclude the miscarrying of the plan. He believed that if the offer was made as a second-year scholarship, students to whom the gift would be helpful would have a better opportunity of obtaining it than was the case when the competition was in preliminary education. Prof. F. P. Tuthill explained briefly how the State association allotted the scholarships. And the delegates to the State meeting were empowered to offer a scholarship.

At the suggestion of Dr. Muir the trustees and faculty of the college were empowered to act with regard to another free scholarship to be awarded to a student completing the first year.

Secretary Hegeman read a report from the trustees of the college wherein was embodied a very fervent endorsement of Dr. Muir for appointment as a member of the board of pharmacy. Prof. W. C. Anderson, in suggesting that the society concur in this endorsement, declared that in all justice to the society, the college and pharmacy in general it was right and proper that a man of the wide experience of Dr. Muir be appointed to the board. This sentiment met unanimous approval.

Dr. Muir thanked his friends for their appreciation, and setting aside, as he said, his personal desire to stay off of the board, he bowed to the wishes of the society and college and consented to be a candidate. As will be seen by reference to page 384, the regents decided not to force Dr. Muir to become a member of the board contrary to his personal desire.

The election of officers resulted as follows: President, C. O. Douden; vice-presidents, H. B. Smith and W. H. Bussenschutt; secretary, A. E. Hegeman; treasurer, Adrian Paradis; new trustees, W. J. Hackett and J. H. Rehfuß; censors, Otto Raubenheimer, J. J. Vetter, and G. R. Christ; and librarian, T. F. Raymow. W. L. Perkins was chosen as counsel.

Delegates to this year's meeting of other organizations were chosen as follows:

American—W. C. Anderson, Otto Raubenheimer, F. P. Tuthill, H. W. Schimpf, and Joseph Kahn.

New York—J. H. Rehfuß, William Muir, W. H. Weygandt, F. P. Tuthill, Joseph Kahn, G. R. Christ, C. E. Heimerzheim, and F. A. Cade.

New Jersey—F. P. Tuthill, C. E. Heimerzheim, W. H. Bussenschutt, H. W. Schimpf, and T. F. Raymow.

The Turley Bill Passed by the Assembly.

The Turley bill was passed by the lower house of the New York legislature, June 20th. The object of the bill is to make druggists, pharmacists or storekeepers, licensed to sell medicines or poisons, criminally responsible for the acts of apprentices or unlicensed employees filling prescriptions under their supervision, and to require every such druggist or pharmacist to sign his full name in his own handwriting upon every prescription filled by him or his employee and upon the label of every box or bottle containing the medicines compounded by him or them, pursuant to the prescription. Such signature is made *prima facie* evidence that the prescription was filled by the person whose signature is written on the prescription or label.

The bill also contains other provisions requiring the filing of certain reports with the secretary of state, the keeping of records of all prescriptions, and regulating the dispensing of medicines and poisons by druggists and pharmacists.

Violation of any of the provisions is made a misdemeanor.

Hypodermic Syringe Bill Becomes Law.

Governor Dix has signed the Boylan bill making it unlawful to sell at retail, or furnish any person other than a duly licensed physician, dentist or veterinarian, a hypodermic syringe or needle, without the written order of such physician, dentist or veterinarian. All sales must be recorded. Any infraction of the law is made a misdemeanor.

An explosion destroyed the greater part of the acetone plant of the Albany Chemical Works on Van Rensselaer Island, June 13th, and caused the death of one man and the serious injury of six others employed in the works. The pharmaceutical and chemical departments were not involved.

New York Retail Druggists' Association.

Two new members were enrolled at the meeting of the New York Retail Druggists' Association held May 26th. This meeting was of more than usual interest.

Peter Diamond reporting as chairman of the committee on legislation stated that the Spielberg bill, a measure fostered by the society in an endeavor to check the practice of giving premiums, would scarcely be reported out of committee. He urged his hearers to express to their representatives at Albany strong opposition to the Turley bill as then constructed. Representative Sherley's bill in congress to levy a stamp-tax on ready-made medicines and toilet preparations was condemned as hurtful and unnecessary class legislation.

The approaching appointment of two new members of the New York Board of Pharmacy has considerably attracted the attention of the association which still maintains its former stand that inasmuch as it is representative of a very large contingent of the pharmaceutical fraternity in this city, it should in justice be represented on the board. For this reason it was deemed proper to recommend to the New York State Pharmaceutical Association that among the names to be submitted to the board of regents be included those presented by the N. Y. R. D. The latter organization favored Dr. Joseph Weinstein and J. L. Lascoff, but Dr. Weinstein declared that under no consideration would he serve on the board and the association recommended Mr. Lascoff and Mr. Diamond.

L. Marmor read a paper on "Ideals," in which the author expressed his view of what was necessary to be done in order that pharmacy might be placed upon its proper plane. He also drew a picture of pharmacy in the future indicated by the present-day trend in the practice of medicine. Mr. Marmor's conclusions were somewhat to the effect that pharmacy or the science of preparing drugs will become superfluous and obsolete.

This paper was so well received that the association decided to have it presented at the meeting of the State association.

Continuing his talk on pharmacal jurisprudence begun at the previous meeting (see last month's CIRCULAR, page 329), Dr. Joseph Weinstein elucidated the provisions and application of the poison schedules of the pharmacy law. By means of a quiz he got almost all of his hearers to discuss this phase of the law and thus brought out the fact that the beliefs of druggists relative to the law's application to their daily practice are often far from correct. The speaker advised his hearers, especially those who employed only unlicensed assistants, to acquaint themselves with the provisions of the poison schedules, lest they abridge their rights or exceed them.

Mr. Marmor and Dr. Weinstein were thanked for their contributions to the interest of the meeting.

As delegates to the meeting of the New York State Pharmaceutical Association the association selected Dr. Weinstein, Mr. Diamond, B. C. Bernstein, M. Halpern, and B. Kirschstein.

New York Board Appointees.

On August 1st will expire the terms as members of the New York State Board of Pharmacy of Otto Raubenheimer, of Brooklyn; J. L. Lascoff, of New York; and John Hurley, of Little Falls. At the recent meeting of the New York State Pharmaceutical Association there were nominated as successors to these members, nine members of the association, as mentioned on page 389.

The board of regents makes the appointments, but is not confined by law to the nominees made by the association. The regents have appointed John R. Wall, of New York (one of the organizers and leading members of the drug clerks' association known as the National Pharmaceutical Society) to succeed Otto Raubenheimer, and the other two members whose terms expire, to succeed themselves. All these were association nominees.

Dr. Joseph Kahn has been made professor of pharmaceutical chemistry at the Brooklyn College of Pharmacy. This professorship is a newly established one, the subject having been taught by Dr. Kahn as lecturer.

Mrs. Elizabeth Baltzly, of this city, will continue the business of her late husband, A. B. Baltzly, under the same name.

New York German Apothecaries' Society.

The regular monthly meeting of the New York German Apothecaries' Society was held June 1st, President Kleinau in the chair.

After various communications, brought before the society by financial secretary, R. S. Lehman, and corresponding secretary, E. A. Broetzel, had been disposed of, S. V. B. Swann, chairman of the legislative committee, reported on various bills, of interest to the pharmacists, at present before the legislature. Particularly he mentioned the Turley Bill, and asked the members to unite in a formal vigorous protest against this bill, the protest to be sent to the leader of the assembly, E. L. Smith. In answer to the question of Mr. Broetzel as to what attitude the physicians had taken in regard to the bill, O. Raubenheimer said that the New York County Medical Society also had officially protested against it.

O. P. Gilbert, chairman of the entertainment committee, reported on the trip to Baltimore to visit the laboratories of Sharp & Dohme. He said that this visit, which was in every way considered a complete success, was immensely enjoyed by all who had participated in it. He asked that the society express their thanks both to the firm and to their representatives, in particular to G. T. Riefflin. This was done unanimously.

Mr. Gilbert reported that the preparations for the excursion to College Point on July 6th had been completed.

After President Kleinau had greeted the new members who for the first time attended a meeting, eight applicants for membership were elected.

A resolution offered by President Kleinau and supported by various members to elect Dr. A. R. L. Dohme an honorary member of the society, in recognition of his interest in pharmacy and in the affairs of the Germans in the United States, was adopted by acclamation.

President Kleinau then introduced the speakers of the evening, Dr. E. D. Feldmann and B. Zwilling, who gave a very interesting lecture and demonstration of the Langrehr safety tube for cans, etc., containing inflammable substances. A lively discussion followed these most interesting and important experiments.

After several subjects relating to practical pharmacy had been discussed by various members, the meeting adjourned until the first Thursday in September.

The corporation of Pond, Bowes & Cartwright, Broadway and Seventieth street, New York, has been placed in the hands of William J. Flynn, a receiver in bankruptcy. Some of the largest creditors are the American Druggists' Syndicate, \$4,935; C. H. Goddard, \$7,500 (loan); M. Howe (secretary-treasurer of a subsidiary A. D. S. company) \$5,000 (loan). In the petition in bankruptcy it was alleged that the corporation was insolvent, made a preferential payment of \$439 to the Alliance Realty Company and transferred large sums of money to other creditors. The concern was incorporated March 24th, 1910, with a capital stock of \$25,000. The liabilities are said to be about \$25,000 and assets \$12,000. It may be recalled by some that the Riker people made an offer for this store a couple of years or so ago, which was refused by its then proprietors. Soon thereafter a Riker store was opened about a block above it, whereupon Pond, Bower & Cartwright were willing to quit. Mr. Goddard, it was understood at the time, formed the corporation which took possession of the store, for the purpose of demonstrating how A. D. S. methods would bring victory out of defeat.

The New York chapter of the Philadelphia College of Pharmacy Alumni Association held its annual meeting and dinner on the evening of May 23d. The following officers were elected: President, S. W. Fairchild; treasurer, H. N. Fraser; secretary, C. A. Mayo; executive committee, David Costello, T. D. McElhenie and H. J. Schmidt; member of the advisory board, Joseph Healy.

There is some talk to the effect that the American District Telegraph Company of Brooklyn, with a charter which gives it the privilege of placing telephone wires anywhere in the State, is to pass into the hands of a company which will compete with the concern now holding a telephone monopoly in Greater New York.

Hon. Peder Jensen, of Tacoma, it is now, the well-known secretary of the Washington Board of Pharmacy having been elected to membership in the senate of that State.

Mr. and Mrs. Harry Skillman, of Detroit, sailed recently on the Olympic for a two months' visit to Europe.

New York State Association.

Although a bit slow in arriving the visitors to the meeting of the New York State Pharmaceutical Association held at Alexandria Bay, June 20th to 22d, outnumbered those of the preceding two years. While there was not "much doing" in a general sense, the anxiety felt because of the extra-pharmaceutical efforts to secure pharmaceutical legislation served to keep the attendants on the alert. There was a marked absence of airing of personal grievances and all was harmony.

All that might be desired in the way of weather conditions existed, and as an outing the occasion was most beneficial. The St. Lawrence brand of ozone is certainly good for lungs tired of the drug-shop atmosphere.

For next year's meeting place Sacandaga Park, Fulton county, was selected. This selection, it is rumored, is not final.

THE OFFICERS.

These are the officers elected for the ensuing year: President, C. B. Sears, of Auburn; vice-presidents, L. J. Schlesinger, of Yonkers; J. H. Rehfuess, of Brooklyn; and C. N. Cook, of Alexandria Bay; secretary, E. S. Dawson, of Syracuse; and treasurer, Frank Richardson, of Cambridge. The members of the executive committee are C. H. Lehmann, of Tottenville; Peter Diamond, of New York; and A. W. Palmer, of Olean.

First Session, Tuesday Forenoon.

At 10:30 A. M., June 20th, the thirty-third annual convention of the New York State Pharmaceutical Association was convened at the rap of the gavel in the hands of President A. S. Evans, of Utica. The attendance was not quite so large as had been characteristic of the opening sittings of recent years, but the assemblage was made up of representative members from a wide territory.

While awaiting the arrival of J. B. Reid, the president of Alexandria Bay, several announcements relative to transportation and registration were made by Secretary E. S. Dawson, of Syracuse. These were followed by the posting of the names of a number of persons making application for membership in the association.

As Mr. Reid's appearance was further delayed, the president introduced H. W. Marshall, of Alexandria Bay, who in a few happy sentences welcomed the visitors on behalf of the druggists of the town. Treasurer Frank Richardson, of Cambridge, responded to the welcoming in his well known anecdotal vein.

Several communications and further announcements were read by the secretary; and Vice-President C. B. Sears, of Auburn, occupying the chair, President Evans read the following annual message:

PRESIDENT'S ADDRESS.

It is certainly a great thing for a man to be able to stand before such a gathering of his fellow-men and call them all friends. I am glad and proud to say that I feel you are all my friends. In these days, the world judges a man by the things he has accomplished; his friends by what he has tried to accomplish, although he may have failed. So if I have failed in any way to come up to the mark you expected me to, I do not fear your judgment.

The Association.

I have feared and still fear there may be a falling off in attendance and interest in the meetings, since we no longer elect the members of the board of pharmacy. But as we nominate and submit the list of names for the regents to choose from, we still, to a great extent, control the membership of the board; for so long as we choose men of such standing and integrity as we have in the past, the regents are bound to respect our choice.

I have tried to devise some means to create interest, but in this I have failed. I urge each and every member to take advantage of every possible opportunity of informing non-members of the benefits of membership, of what we have done for them, and how much more it is possible for us to accomplish with a larger membership.

The Board of Pharmacy.

We realize that the board has been handicapped during the year, as the regents were late in making appointments and the powers that be were slow in furnishing the necessary funds to do the work. But I know I voice the sentiment of all present when I say we have perfect confidence in them all.

My opinion, I can best state in the words I used when interviewed by the New York World representative, regarding the Turley bills. I was informed it was for publication, but as they failed to publish it, I give it here: "The New York State Board of Pharmacy, appointed by the regents, has the power and is qualified to make all necessary rules and regulations to regulate the drug business and protect the public, and is better fitted to do so than those who know nothing about the business."

Yellow Journalism.

The pharmacists in New York have been attacked in the most vicious manner by the New York World. They have been

charged with carelessness, incompetency, using inferior and adulterated drugs, and wilful substitution. I do not believe these charges. The nature of the drugs selected for its sample prescriptions show the intent, on the part of the World of getting evidence regardless of facts, and it has stooped to so many fallacies and misrepresentations that we are compelled to discredit the whole affair. In introducing the Turley bills this paper has shown how little it knows regarding the drug business, and the assistant district attorney, who framed the bills, has plainly shown either his ignorance of, or absolute disregard for, the fundamental principles of law.

Legislative Work.

This year we expected little to do along legislative lines, but since February there has been a number of bills introduced which will be taken up in the legislative committee's report. Right here I wish to thank the members of the committee and the large number of other members of the association on whom I have called, for their hearty support and response to my requests. The association owes a vote of thanks to Dr. William Muir for his faithful and untiring work in its behalf. He has ever been on the alert, has let nothing escape him, and has never failed in any respect to do the right thing at the right time. I might add that in this respect Dr. Muir has but continued the loyal, hearty, earnest work of previous years.

I wish to go on record against local organizations introducing bills without first submitting them to this association or to its legislative committee, as in the majority of cases they are framed to affect some local condition, and would work a hardship to other parts of the State, whereas, if they were submitted to the association or a committee representing different parts of the State as our committee does, they could be framed to accomplish the desired result without hardship to anyone. Another thing, while a bill may be a good one, you must consider well if it can be passed. Consider whom it is aimed against, who is on the health committee of the senate and assembly; for a good bill introduced and defeated may interfere with future legislation along the same lines, so my advice is: Go slow.

The Committees.

I will not attempt to cover the work of the various committees. They have performed their work well I know, and you will be interested in their reports. There are two new committees whose reports we await with special interest. I refer to the committees on scholarships and on the revision of the U. S. P.

The National Association of Retail Druggists.

The N. A. R. D. seems to have been revived and is working along new lines with new methods and ideas, and I advise that before any action is taken, we investigate thoroughly into its present condition and judge it in an open-minded way, forgetting any prejudice that we may have had in the past. We are honored by having the president with us at this meeting, and at some future time during the proceedings we will be glad to hear from him in regard to the present work and plans.

The Commercial Travelers' Auxiliary.

Our good friends, the commercial travelers, have become a necessity, contributing to our business success, and on them rests to a very great extent the future success of this organization. To my mind it has been plainly demonstrated that all hope of future growth in the membership of this society rests almost entirely in their hands.

As an experiment, I sent out letters to a list of thirty-five live druggists, who are not members of the association, and followed these up with a second letter, enclosing application blanks in both cases, stating the work we are doing, and inviting them to join the association, and I am sorry to say I did not receive a single reply, while our commercial ambassadors have been gathering in applications on all sides. On behalf of the association, I thank them for their good work along these lines, also for their willingness to help at all times, and for the entertainment they have so generously prepared for us.

The Press.

We are indebted to the gentlemen of the pharmaceutical press for their friendliness, encouragement and readiness to assist at all times. They have been instrumental in defeating unfavorable legislation, both State and national, and I wish to express my thanks and good wishes to them all.

It is with sorrow I have to report, that during the past year Providence has removed from our midst a number of members, whose names will be shown in the secretary's report.

In concluding this message, I would be lacking in appreciation if I failed to express to every member of this association, the officers and the committees my sincere thanks for their many acts of kindness to me, and their hearty co-operation during the term of my office. I fully appreciate the honor of having held the highest office in this association, and hope in the future to contribute to its success as a private in the ranks. To each and every one of you I extend my best wishes for health and happiness.

This address was duly and enthusiastically received, and was referred in the usual order to a committee consisting of Prof. W. C. Anderson, of Brooklyn; William Muench, of Syracuse; A. S. Wardle, of Hudson; L. J. Schlesinger, of Yonkers; and C. A. Drefs, of Buffalo. As this committee was entrusted with the consideration of several additional matters its conclusions are all to be found in the report of the sitting.

Next in order came the report of the secretary's office, which was as follows:

SECRETARY'S REPORT.

The annual Proceedings were published by a firm in Syracuse, at a price of \$1.22 per page, and, as there were 274 pages in this, as against 320 pages in last year's book at a price of \$1.20 per page, the cost was less than that of the latter.

Owing to the fact that our president could not appoint the committee on legislation until after the regents had appointed the members of the board of pharmacy, his list of appointees did not reach your secretary until late in October, and as soon as possible after that, the books were mailed to the members of the association.

It is with profound sorrow that your secretary makes announcement of the decease of the following members:

Dwight Marion Bowers, of Sidney; George Washington Brooks, of Brooklyn; Charles K. Crowell, of New York; Wilfred B. DuBois, of New Paltz; Charles Houghton, of Rochester; Fred Harry Mason, of Friendship; William T. McBay, of Rochester; Theodore M. Millspaugh, of Liberty; Elmer C. Root, of Hamilton; Edwin Wall, of New York; and J. Leroy Webber, of Brooklyn.

Your secretary is again privileged to express his grateful appreciation of the courtesies extended him by the officers of the association, in the performance of his official duties, and, to the members of the Commercial Travelers' Auxiliary for their efforts to enlist new members in our ranks.

At the last meeting eighty (80) new members were elected, and our association shows a fairly gratifying growth, although the losses in membership, through deaths, resignations and dues arrearage penalties have been considerable.

At the publication of the last proceedings the list of active members numbered..... 1361

There have since died (as far as known)..... 11
Resigned 20
Dropped from roll..... 6 37

Total present membership..... 1324

(Some of whom are in arrears for dues.)

Official acknowledgment is made of the receipt of the following publications: Alumni Report of the Philadelphia College of Pharmacy, American Druggist, Apothecary, Bulletin of Pharmacy, Deutsch-Amerikanische Apotheker-Zeitung, The Druggists Circular, Merck's Report, Meyer Brother's Druggist, Midland Druggist, N. A. R. D. Notes, National Druggist, Pharmaceutical Era, Practical Druggist, The Retail Druggist, Southern Pharmaceutical Journal, and "The Voice" of the Retail Druggist. Copies of annual Proceedings were received from the National Wholesale Druggists' Association, and from the pharmaceutical associations of thirteen States, a courtesy that your secretary reciprocated.

The records of the last annual meeting, as compiled from the official registers, exhibit the following:

Total number of traveling men in attendance..... 30
Members in attendance..... 121
Ladies in attendance..... 40
Traveling men in attendance not members..... 11

Total attendance..... 191

The expenses of the office have been as follows:

Traveling expenses, etc., at Saratoga Springs..... \$43.10
Secretary's salary..... 300.00
Stationery and printing..... 60.00
Publishing Proceedings..... 332.49
Postage on same..... 72.45
Postage on meeting notices..... 13.20
Postage on certificates..... 4.10
Other postage expenses..... 24.30
Engrossing certificates..... 10.25
Mailing tubes..... 2.75
Half-tone plates..... 11.64
Expressage on stationery, etc..... 6.70
Office supplies..... .90

Total..... \$881.88

Bills, covering most of these items, are in the hands of the executive committee.

This report was received and referred for printing.

Treasurer Richardson reported as follows:

TREASURER'S REPORT.

Receipts.

Cash on hand last report..... \$1,243.07
Dues of members..... 1,846.10
Applications for membership..... 278.00
Greater N. Y. A. D. S..... 32.68

\$3,399.85

Disbursements.

Fred S. Rogers, legislative committee..... \$28.30
F. R. Brothers, executive committee..... 1.45
Henry W. Hill, legal services..... 125.00
Lillian Bushman, typewriting..... 2.50
J. A. Lockie, membership committee..... 3.75
Frank Richardson, salary and expenses..... 238.76
Charles L. McBride, legislative committee..... 9.60
Felix Hirsman, legislative committee..... 13.00
Thomas Stoddard, legislative committee..... 241.85
Peter Diamond, legislative committee..... 25.00
William Muir, legislative committee..... 60.00
Edward S. Dawson, salary..... 300.00
Sarah A. Moore, stenographer..... 60.00
Edward S. Dawson, contingent fund..... 25.00
Sarah A. Moore, reporting meeting..... 72.60
Edward S. Dawson, printing, etc..... 150.00
Pinzer Union Company, printing Proceedings..... 332.49
N. A. R. D. dues..... 85.50
H. B. Guilford, legislative committee..... 14.47
A. S. Evans, legislative committee..... 28.33
Edward S. Dawson, contingent fund..... 68.00
Pinzer Union Company, printing..... 13.00
Edward S. Dawson, contingent fund..... 25.00
Charles F. Fish, chairman local committee..... 13.04
Henry M. Whelpley, Procter memorial..... 126.00

\$2,062.64

Balance on hand..... 1,337.21

\$3,399.85

REPORT OF THE BOARD OF PHARMACY.

In accordance with the provisions of the pharmacy law W. L. Bradt, secretary of the New York Board of Pharmacy reported on the affairs of that body during the past year. Because the fiscal year of the board was not completed and also because of the delay in the inauguration of the new board's work this report was somewhat unfinished. It had to do chiefly with the relation of the formation of the board and the plans it had adopted for the performance of its duties.

The report was received in the usual manner.

Some little discussion took place at this time anent the feasibility of fixing an hour earlier than that scheduled for the selection of nominees to be recommended to the board of regents for their consideration in choosing successors for the members of the board whose terms expire this year. It was decided, however, to adhere to the time stated in the official program, 12 o'clock noon of the second day of the convention.

Secretary Dawson read a communication from Thomas Lamb, of Brooklyn, in which it was proposed that article 8 of the constitution of the association be amended to read as follows:

The annual meeting of the association shall be held at such time and place as the association from year to year shall select. Providing that once in every three years said annual meeting of the association be held in any one of the following counties, to wit: New York, Westchester, Kings, Queens, Nassau, Suffolk, or Richmond.

As is provided in such cases action on this proposed amendment was deferred until the 1912 meeting.

A suggested model for a bill to restrict the publication in newspapers of details of homicides and suicides by poison, which had been forwarded from Philadelphia, Pa., was read by the secretary. In due order it was referred to the consideration of the committee on the president's address.

Next came a recital of the association's most interesting and perhaps most important work of the year in the report of the committee on legislation, which was read by Dr. William Muir, of Brooklyn. This report was as follows:

REPORT OF THE LEGISLATIVE COMMITTEE.

Undoubtedly it was the hope of the members of the association that the continued efforts to inflict drastic and unwholesome legislation upon the pharmacists would cease immediately upon the enactment of the new pharmacy law by the legislature of 1910. In this, however, the officers of the association and the members of the legislative committee have been disappointed, for in no recent year have such strenuous efforts been necessary to circumvent the plans of designing men promoting legislation intended to harass the pharmacists. The source of many of the measures projected is easily surmised, while the reason for the exploiting of others cannot be understood except as an effort on the part of some office-holder or newspaper man to advertise himself before the public; and, in looking around for that which will more readily alarm the men and women of the land, the druggist, because of his intimate relations with all classes, seems to have been seized upon as the one more easily attacked with the greater resultant publicity and alarm. After the experiences of the past year your committee may be pardoned if reference is again made to the absolute necessity for a stronger co-operation of all the pharmaceutical interests through organizations, equipped to meet these attacks, and, because of such organization, able to overcome many of them. The members of the State association can do themselves and their profession no greater benefit than that each member shall see to it that every pharmacist in the State of New York is enrolled upon our membership, thereby strengthening the usefulness of the association and insuring it representative character in repelling attacks made upon its members. Unless this is fully accomplished, and every reputable pharmacist in the State owes allegiance to the State association, the unfounded and scandalous attacks which have been made upon the profession of pharmacy by agitators, particularly among newspaper men, will continue and must ultimately impair the confidence of the people in our profession. The tremendous labor of your committee before congress and the State legislature, combating measures inimical to our welfare, justifies the foregoing statement.

During the early part of January, 1911, the attention of your committee was directed to the so-called Foster bill, H. R. 25241, pending before the committee on ways and means of the house of representatives, and by direction of the president of the association your committee attended the hearings upon the bill and with representatives of the allied branches of the drug trade protested against its passage. Singular to relate your committee was the only representative of any of the State pharmaceutical associations of any of the States of the Union appearing in direct opposition to the measure. The bill originated with the so-called United States opium commissioner, Mr. Wright, and if enacted would have entailed enormous labor upon the retail pharmacists by requiring the keeping of a detailed record of every sale of prescription or preparation containing opium, coca, cannabis indica, morphine, or any other narcotic drug. It further required that each pharmacist should pay a license fee of \$1 and furnish a bond costing anywhere from \$10 to \$20, and in addition to this it further required that the pharmacist should make minute and detailed monthly reports of all sales and purchases to the internal revenue col-

lector. Notwithstanding the enormous burden thus imposed upon the pharmacists, no claim was made that the Foster bill would stop the sale of the narcotic drugs aimed at, but on the contrary it provided that a license to sell these drugs might be issued to any person who could pay the fee, be a registered pharmacist or otherwise. The only reason advanced in favor of the bill was that it would provide valuable statistical information upon which to establish future legislation. Voluntary efforts were made by several of the members of the State association, upon a given date, to comply with the regulations in the Foster bill, with the result that it was found to be utterly impossible and impracticable to do business honestly under them. Your committee endeavored by personal conferences and by correspondence to show the utter inability of the retailer to comply with the requirements of the bill and are happy to say that largely through the efforts of the committee the bill was killed.

Another bill of special interest is the bill introduced in the special session of the present, or sixty-second congress, by Mr. Sherley "to provide revenue by a stamp-tax on proprietary medicines, and so forth, and for other purposes," which measure is now pending before the ways and means committee of the house of representatives. Your committee filed an earnest protest against this measure and communicated the wishes of the pharmacists of this State to every member of congress. At the present time the bill is still in the ways and means committee and we have the assurance of that committee that the bill will not be acted upon.

Pursuant to the resolution adopted at the meeting of the association held at Saratoga, your committee prepared a bill relative to working hours of pharmacists in drug stores, which was introduced in the senate by Mr. Ferris, and in the assembly by Mr. Allen. The bill reduced the number of working hours from 140 to 132 hours in each two weeks, and applied generally all over the State. This bill has passed the assembly and upon consideration by the senate was amended to meet a constitutional objection. This having been overcome, we are assured that the bill will pass the senate and as amended will be concurred in by the assembly and thus become a law.

At the instigation of the New York Retail Druggists' Association, to correct a growing and demoralizing evil in some parts of the city of New York, a bill was introduced by Assemblyman Spielberg prohibiting premiums with sales by retail druggists. Your committee earnestly supported this bill, but because of the opposition from the trading-stamp concerns has been unable to secure its report from the assembly committee on codes.

A very objectionable measure, in its original form, was introduced in the senate by Mr. McManus, and in the assembly by Mr. Boylan, to amend the public health law in relation to the selling of hypodermic syringes and needles. Your committee attended the hearings on this bill and succeeded in having incorporated several amendments which perfected the bill so that the committee was justified in supporting the same, with the result that the bill is now a law.

One of the daily papers in the city of New York has, for some unknown reason, been conducting a malicious crusade against the pharmacists, resulting in considerable alarm among the people; and has been professing to cure the evils complained of by bills introduced by Assemblyman Turley, a representative from the Bronx. To one of these bills your committee has made no objection, being content with an effort to perfect it by amendment. The bill requires that every physician's prescription shall contain a statement as to whether the medicine is for an adult or for a child, and if for a child, must state the age thereof. This bill has passed the assembly and will no doubt pass the senate and become a law.

The other bills exploited by the newspaper and introduced by Mr. Turley are, however, of a different character, and have given your committee considerable work and anxiety. The bills have taken on different forms and have contained different radical and ridiculous propositions, some of which have been so manifestly unjust and unreasonable that the argument of your committee compelled the abandonment of the bill. It is unnecessary, therefore, to recite the provisions of the measures which have been abandoned, and your committee will content itself with a summary of the last bill introduced and pressed by Mr. Turley for passage.

It provides that every pharmacist, druggist or storekeeper, licensed to sell medicine or poisons, shall be criminally responsible for the act of any apprentice or unlicensed employee filling any prescription. This provision is manifestly unconstitutional.

That every pharmacist who fills any prescription for drugs, poisons, etc., shall, in his own handwriting, write his full name, with his license number, his house address and the date on which the said drugs, etc., are prepared, upon the label of each box, bottle, package, or vessel containing the compound, and shall also write the same information upon the prescription or order used and shall then file same and shall also, in his own handwriting, file the required entries in a book provided for under the bill. This shall be prima facie evidence that the said prescription was prepared by the proprietor or employee in the pharmacy in which said prescription may have been filled. This provision is a direct conflict with the pharmacy law, the health law and the penal code.

That every licensed pharmacist, druggist or storekeeper shall on January 1st of every year file with the secretary of the State board of pharmacy, in his own handwriting, a report giving his full name and address, his license number, the date of such license, the persons or places where employed of every registered pharmacy or drug store shall keep a book during the year prior to such report, etc. That the proprietor for the entry of (a) the name and address of the physician purporting to have made the prescription; (b) the date of receipt of said prescription; (c) the drug, chemical, medicine or poison prescribed; (d) the date on which the drugs, etc., are prepared for dispensing; (e) the name, license number and house address of the individual who filled the prescription. The said book shall be open every day for the inspection of the district attorney or coroner, the mayor, the head of the police department, and the head of the board of health, or any authorized agent thereof.

The prescription filled shall be kept available for inspection for a period of five years, together with all of the information written thereon by the pharmacist.

On the first days of January and July each year a report under oath shall be filed with the secretary of the State board of pharmacy giving a record of all employees engaged in his establishment for the six months prior to such report.

It is required that every physician shall have his name and office address written or printed upon every prescription given by him. The penal provisions of this act are severe.

The extraordinary character of the bill finally reached by Mr. Turley is so thoroughly appreciated that it is impossible for him to secure the passage of the bill without radical amendments thereto. Your committee has been unceasing in its opposition to this measure, and we are happy to report that it has been amended and its provisions so modified as to remove a great many of the objectionable features complained of. Whether this will satisfy the apparent insatiable desire of the newspaper referred to, your committee will not venture to predict.

A bill was introduced by Assemblyman O'Neill to meet the conditions imposed by the regulation of the health departments in some of the cities of the State, particularly the city of New York. The measure provides that where the public health law provides for the regulation and supervision of the sale of drugs, etc., for medical purposes, local authorities shall have no power to pass any ordinance or regulation in relation to such sale and that where such local ordinance or regulation has been promulgated it has no effect. This bill still remains in the committee on public health.

An attempt to amend the present pharmacy law which originated in the State association was made in a bill introduced by Senator Pollock, proposing to strike out the requirement that an examiner employed by the board of pharmacy shall have practiced as a pharmacist for at least ten years in this State. It further provides that the secretary of the board shall not necessarily be a licensed pharmacist who has legally practiced for at least ten years in this State, and substitutes therefor a provision that the secretary shall be "a pharmacist licensed to practice," also that the secretary shall not be appointed by the regents and hold office during their pleasure, but that he shall be appointed by the governor for a term of three years. This measure your committee opposed most energetically before the senate and assembly committees on public health, and we are pleased to report that the bill has not been reported from either of said committees.

Another interesting measure was introduced by Assemblyman Brennan, of New York. It provided that any person selling grape juice in quantities of one gallon, quart, or less, must pay a tax of \$150 for the privilege and obtain a certificate authorizing him to sell grape juice at his place of business, but only such grape juice manufactured in the State of New York or manufactured from grapes grown in said State. This bill entailed considerable work upon your committee, and it is, therefore, with pleasure that we report that the bill has been killed.

An old friend in a new form appeared in the bill introduced by Assemblyman Schifferdecker and Senator Sanner, both from Brooklyn. This bill attempts to put into the pharmacy law a provision that no retailer shall sell or furnish any of the poisons of schedule A and B in liquid form except, in addition to bearing a poison label, such poison shall be in a bottle of peculiar shape or in a bottle having a cork or stopper of peculiar shape to apprise any person handling the same, by sense of touch, that the contents thereof contain poison or poisonous ingredients. It is unnecessary to point out the ridiculous character of this proposition. As first introduced it applied to wholesalers, but was subsequently amended and now applies to retailers alone. As amended it passed the assembly and is now in the senate. Your committee, however, has filed the strongest kind of protest against it and has been instrumental in procuring a large number of protests from pharmacists all over the State against it. We are, therefore, justified in the belief that the bill will fail of passage in the senate.

Another old friend appeared in the shape of a bill introduced by Assemblyman Foley, of New York, authorizing the admission to the practice of pharmacy of a man who had not qualified under the law. One hearing before the committee was sufficient to kill this bill.

Your committee regrets exceedingly its inability to report at this time the final disposition of some of the measures herein referred to. This, however, is easily understood when it is remembered that the session of the legislature has been unduly prolonged, and even now both houses are in session.

One of the matters which gave rise to great excitement in the city of New York during the year was the ordinance adopted by the board of health in the city of New York, August 26th, 1910, amending section 182 of the sanitary code so as to prohibit the sale of any preparation containing opium or morphine, or their salts, except upon the prescription of a licensed physician. Appreciating the importance of this subject your committee called a meeting of representatives of all of the pharmaceutical organizations in the city of New York, the State association being represented by Dr. Muir of this committee, who was elected chairman of said conference. Numerous conferences were held with the board of health and the ordinance was amended from time to time. Finally, on March 21st, 1911, the following ordinance was agreed to by the members of the conference and the board of health and adopted in lieu of the former amendments to section 182 of the sanitary code.

BOARD OF HEALTH ORDINANCE PERTAINING TO SALE OF NARCOTICS.

(Section 182 of the Sanitary Code as Adopted at the Meeting of the Board of Health, March 21, 1911.)
Section 182. No cocaine or salts of cocaine, eucaine, stovaine, alpha- or beta-eucaine, either alone or in combination with other substances, or any substance under any other name giving a similar chemical test of cocaine; and no opium or official preparation of opium, and no morphine or salts of morphine, or the derivatives of either or any of them, shall be sold at

retail by any person in the city of New York except upon the written prescription of a physician, duly authorized to practice as such or other person duly authorized by law to practice medicine and administer drugs, or perform surgery with the use of instruments.

Nothing hereinbefore mentioned, however, shall apply to compounded mixtures containing opium or morphine or their derivatives, the formulas for which are given in the latest dispensatory or the National Formulary, in which said mixtures the maximum dose, as plainly stated on the label of the package as dispensed, does not contain in excess of one-half a grain of powdered opium or the equivalent of its alkaloids; or to preparations for external use only, in the form of liniments, lotions, ointments or oleates.

The last mentioned preparations shall be labeled "For External Use only," and marked "Poison."

With a desire to bring about co-operation between the State association and the several local associations throughout the State, your legislative committee called a conference at the Hotel Ten Eyck, at Albany, February 9th, 1911, which was attended by the following: For Kings County Pharmaceutical Society, Dr. William Muir; New York branch American Pharmaceutical Association, T. P. Cook; New York Retail Druggists' Association, Joseph Weinstein; New York German Apothecaries' Society, Felix Hirshman; Drug Trade Section of the New York Board of Trade, T. P. Cook; Metropolitan Drug Club, T. P. Cook; Italian Pharmaceutical Association of State of New York, Vito Calcagno; National Pharmaceutical Society, B. H. Kirschberg; Brooklyn Pharmaceutical Association, E. C. Krausche; Retail Druggists' Protective Association of Brooklyn, S. L. Neier; Long Island Drug Club, S. L. Neier.

A general discussion was had upon the bills then pending in congress and in the legislature, and a uniform line of action was determined upon. It was also decided to procure the introduction and passage of the bill above reported upon and known as the Ferris-Allen shorter hour bill. The matter of the introduction of a bill to prevent a physician signing a death certificate in case the physician had dispensed his own medicine to the patient was discussed and it was finally decided not to introduce such bill until it had been considered by the State association. Your committee therefore recommended that this proposition receive the earnest consideration of the members present at this annual session.

Discussion arose as to the probability of the establishment of a national board of health, and the conference decided that the organization of such commission should consist of three physicians, two chemists and two pharmacists. No definite action, however, was taken upon the main proposition itself, and your committee recommends that the matter receive the attention it deserves at this meeting of the association.

Attached hereto are copies of several bills and circulars which have been issued through the instrumentality of your committee during the past year.

Your committee cannot close this report without expressing regret that the old-time friends of the pharmacists, Senator Hill, of Buffalo, and Assemblyman Whitney, of Saratoga, were not members of the present legislature. Only the men who have been in constant touch with the legislation herein reported upon can realize the loss of the friendship these stalwarts have always given to the pharmacists. In their absence we have, however, had the active co-operation and friendship of Assemblyman Edward Merritt, of St. Lawrence, Assemblyman F. W. Hammond, of Syracuse; Assemblyman H. E. Allen, of Oneida county; Senator T. Harvey Ferris, of Utica, and Assemblyman M. S. Beach, together with the co-operation of our associate, Assemblyman Brown of Cortland. To these men are due the thanks of the pharmacists of the State of New York for their efforts to protect the welfare of our profession, and through it the health and the welfare of the people of the State.

Supplementary to this report Mr. Wardle recounted some of his experience in arousing druggists to an appreciation of the work of the association in legislative channels. He also advised the members present to express at once to their representatives at Albany their opposition to the Turley bill fostered by the New York World. J. B. Todd, of Ithaca, and Dr. A. B. Huested, of Delmar, also called attention to the value of the work of the legislative committee.

The report was referred to the committee on the president's address.

In the discussion of the foregoing report several references were made to the fact that if druggists generally recognized the value of the legislative work of the association they would better appreciate the usefulness of the organization. With a view to bringing this about, the committee on the president's address was instructed to consider a plan for hiring a paid canvasser for the purpose of spreading the doctrines of the association and securing members.

Adjournment was then taken, at 12:15 o'clock.

Second Session, Tuesday Afternoon.

President Evans resumed the chair at 2:40 p. m., and after the usual routine had been disposed of, including the posting of the names of thirteen more applicants for membership, the president named as the committee on credentials, C. A. Drefs, James Clary, and C. H. Bernstein.

As the next order of business was taken up the report of

the committee on pharmacy and queries presented by the chairman, Dr. F. P. Tuthill, of Brooklyn, and reading as follows:

REPORT OF THE COMMITTEE ON PHARMACY AND QUERIES.

Shortly after January 1st the chairman notified the other members that this was a committee of three, and that each member was expected to procure a certain number of papers as his share of the work, in any way that he desired; no general plea for papers was issued.

The committee finds it somewhat difficult to procure papers, due to the fact that not proper time is allowed for the reading and discussion of same. It is not fair to have a member spend time and money getting up a paper and then have it hurriedly read, or many times read by title. We believe that if the association desires this work to continue more time should be given to this committee to properly dispose of the results of its labor.

The Meyer Brothers Druggist, of St. Louis, has offered to this association three prizes for the best papers offered at this meeting: First, A three-year subscription to the Meyer Brothers Druggist; second, a two-years' subscription to the Meyer Brothers Druggist, and third, a one-year subscription to the Meyer Brothers Druggist.

The following papers are presented for your consideration: "Stems in Drugs," by Dr. Henry N. Rusby, of New York; "Organic Synthetics," by Dr. Joseph Kahn, of Brooklyn; "Little Sins at the Prescription Counter," by Dr. Curt P. Wimmer, of New York; "The Hot-Plate a Handy Drug Store Apparatus," by Dr. Joseph L. Mayer, of Brooklyn; "Naturally Occurring Cube Substitutes," by Dr. William Mansfield, of New York; "Tincture of Larkspur," by Otto Raubenheimer, of Brooklyn; "The Essentials of a Reputable Pharmacist," by J. Leon Lascoff, of New York; "Restrictions in Pharmacy Here and Abroad," by Bernard Cole, of New York; "The Misuse of Wood Alcohol," by Otto Raubenheimer, of Brooklyn; and "Ideals," by L. Marmor, of New York.

This report was duly received, and the reading of the papers was taken up in the following order: "Naturally Occurring Cube Substitutes," by Prof. William Mansfield, of New York; "Organic Synthetics," by Prof. Joseph Kahn, of Brooklyn; "The Essentials of a Reputable Pharmacist," by J. L. Lascoff, of New York; and "Tincture of Larkspur," by Otto Raubenheimer, of Brooklyn.

Considerable discussion attended the presentation of these papers, in which Messrs. Anderson, Weinstein, Todd, Boetzel, Butler, Muir, and Wall joined with the authors. There was much appreciation of the contributions and a general concurrence in the opinions of the authors. Messrs. Raubenheimer and Kahn, however, indulged in a verbal passage at arms with reference to some portions of the latter's paper. The chief difference of opinion was concerned with the toxicity of carbon tetrachloride and the anesthetic property of its vapor, to which reference had been made by Prof. Kahn. Mr. Raubenheimer contended that these characteristics were greatly exaggerated in the literature and that his practical experience with the substance had led him to consider it quite harmless in either way. [This statement does not seem to be borne out by recently reported facts.—Editor THE DRUGGISTS CIRCULAR.]

Mr. Muir brought up for consideration a communication from the Italian Pharmaceutical Society of the State of New York, in which were embodied some suggestions for the amendment of the pharmacy law designed to admit physicians to examination for registration as pharmacists by virtue of their being licensed to practice medicine, and to place more stringent restrictions about the dispensing of drugs by physicians. Action on this communication was at the time deferred, and the matter was subsequently disposed of temporarily by referring it to the committee on the president's address.

Adjournment followed at 6:15 o'clock.

Third Session, Wednesday Forenoon.

When the routine of the sitting, convened at 9:40 o'clock Wednesday morning had been carried through, the reading of papers was taken up. Chairman Tuthill, of the committee on pharmacy and queries, read a paper by Dr. J. L. Mayer, of New York, on "The Hot-Plate as a Handy Drug Store Apparatus," and one by Dr. C. P. Wimmer, of New York, entitled "Little Sins at the Prescription Counter." Both of these were received for publication in the official Proceedings. They appear in full on page 347 of this issue.

One of the new committees reported next, the committee on the revision of the United States Pharmacopoeia. This report, which was presented by Dr. G. C. Diekmann, of New York, will be considered in a subsequent issue of the CIRCULAR.

In discussing this report, Mr. Raubenheimer expressed the opinion that patented products should not be recognized in the Pharmacopoeia; that "type processes" should be adopted; that heroic doses should be stated; and that

a standard for medicine droppers should be adopted. The report was referred in the usual order.

At this time an impromptu discussion of legislative matters was aroused and a short recess was taken to protest to the State lawmakers against the passage of the Turley bill.

Reports were presented by delegates who had represented the association at the latest meetings of the National Wholesale Druggists' Association, the New Jersey Pharmaceutical Association, and the National Association of Retail Druggists. The report on the meeting of the N. A. R. D. was read by Dr. Muir, and as it contained several recommendations anent the policy of the association with regard to the national body it was referred to a special committee consisting of Thomas Stoddart, of Buffalo; William Muench, of Syracuse; and C. O. Bigelow, of New York.

The chairman appointed A. S. Wardle, of Hudson; Peter Diamond, of New York; and George Reimann, of Buffalo, to constitute the committee on time and place of the 1912 meeting.

SELECTION OF NOMINEES FOR THE BOARD OF PHARMACY.

As provided in the pharmacy law the association proceeded to select nine qualified persons to be nominated to the regents as the association's choice from among whom might be chosen successors to the three members of the board of pharmacy whose terms expire this year. C. B. Sears, F. P. Tuthill, and C. A. Diefs were named as tellers; and, after a brief discussion, it was deemed advisable to select six nominees from New York city first, and then three from the rest of the State. No contest occurred during the selection and the following were nominated by a unanimous voice: William Muir, Otto Raubenheimer, and W. C. Anderson, all of Brooklyn; Peter Diamond, J. L. Lascoff, and J. R. Wall, all of New York; John Hurley, of Little Falls; A. S. Wardle, of Hudson; and W. B. Bissell, of Syracuse. Messrs. Raubenheimer, Lascoff and Hurley are the members whose terms expire August 1st. The secretary was instructed to forward the names of the nominees at once to the regents. [The regents' selections are noted on page 384.]

Hereupon arose another discussion of the Turley bill, occasioned by the receipt of a telegram that the measure had been unanimously approved by the State assembly. The outcome was the dispatch of messages from the organization and individuals expressing to the State senators strong opposition to the enactment of the bill.

This sitting adjourned at 12:40 o'clock.

Fourth Session, Wednesday Afternoon.

At 2:50 P. M. the convention again assembled, considering, as the first order of business, the report of the committee on new remedies. This was presented by George Reimann, of Buffalo. The report, a lengthy one, was not read in full, the presenter limiting himself to the portion referring to a hay-fever serum being experimented with in Europe. The report took the usual course.

The report of the committee on credentials was then read by C. A. Diefs, of Buffalo. Fifty-six delegates representing seventeen organizations had presented credentials and a number of these delegates extended greetings to the association. In the message of the delegates from the New York branch of the American Pharmaceutical Association, which was made by Hugh Craig, of New York, the association was asked to further legislation that would require methyl alcohol to be labeled with a name that would differentiate packages of that spirit from those containing ethyl alcohol. This request was referred to the committee on the president's address.

For the committee on commercial interests W. B. Bissell, of Syracuse, reported as follows:

REPORT OF THE COMMITTEE ON COMMERCIAL INTERESTS.

Submitting the report of your committee on commercial interests, we beg to state that early in the year, personal letters were sent to twenty-five druggists in different sections of the State, asking for contributions of short papers, embodying their views of trade conditions in their locality, and the effect of chain drug stores on their own and their neighbors' prosperity or perplexity. So many failed even to reply that the outlook was disheartening, but at last a few, always loyal and dependable members came to the rescue with some seasonable, sensible remarks which we beg to commend to your earnest attention.

In our own central section, Syracuse, we have had chain-store invasion, and severe cutting, which has continued for two years, but we have as yet no sheriff's notices to report. Cutting has extended to all manufacturers' goods, even those like Miles' and Colgate's, which were supposed to be price protected.

A good many pharmacists as well as the general public are awakening to the fact that a man who is skillfully and carefully dispensing drugs and chemicals of high potency, is as worthy of skilled remuneration as a plumber or a piano-tuner. We also believe the time is fast approaching when there will be discrimination by the physician and the public he reaches, between the stores which accurately prepare and dispense the best class of pharmaceuticals, and those which sell cut-rate "patents," pancakes, umbrellas, and cream puffs.

I have the honor respectfully to submit the following papers: "The Value of Side Lines in a Suburban Pharmacy," by DeLancy Bartlett, of Fayetteville; "The Competition of the Chain Store," by C. A. Diefs, Sr., of Buffalo; and "A Pot-Pourri of Random Thoughts on Commercial Topics," by Judson B. Todd, of Ithaca, N. Y.

Mr. Diefs read his paper, which was an optimistic view of the possibilities awaiting the individual druggist who will strengthen the personal equation in his business conduct, and a statement of a belief that men still rank above methods in influencing drug store success. A lengthy and very interesting discussion followed Mr. Diefs' expression of his opinions. Mr. Diamond thought that the chain-of-stores movement would necessitate militant action on the part of the individual drug-store keepers. Dr. Weinstein, citing conditions in New York city, was rather pessimistic in his view of the situation. Mr. Wall did not agree that professionalism would save the individual. He also recounted some experiences in "chain" stores. Mr. Bissell said he had found that the physicians and more influential portion of the public did not support "chain" stores. He thought that indolence had much to do with many failures. Dr. Muir was rather inclined to rate highly the detrimental influence of the chain store, and to view pessimistically the ultimate fate of the individual druggist. Mr. Stoddart considered the "chain" store to be a stimulant rather than a depressant to the retail druggist, and placed a high value on personality. Mr. Guilford contended that the tendency to fly too high at the start wrecked many projected drug businesses. He said that opportunities in drugdom were never so plentiful, if the druggist will but apply himself strictly and earnestly to business. Dr. Anderson argued that such competition as the "chain" stores represented did not apply to any extent to the real pharmacy of the drug business and therefore the individual druggist's effort should be to expand this part of his trade, praising propagandic work as a very helpful undertaking in this connection.

Several other members joined in commenting upon Mr. Diefs' paper which was received in the usual order.

Just prior to adjournment, which occurred shortly after five o'clock, an appropriation of \$50 was made to the Hallberg memorial fund.

Fifth Session, Thursday Afternoon.

Immediately after routine matters had been disposed of at the opening of the next sitting at 9:50 A. M., Thursday, Dr. Joseph Weinstein, of New York, read the following report of the committee on adulteration, the chairman, Dr. G. A. Ferguson, being absent:

REPORT OF COMMITTEE ON ADULTERATIONS.

Your committee has been at a loss to a certain degree in selecting a field for its investigations that would be productive of results not only interesting to the members of the association, but also instructive from that standpoint which we assume to look up to, to guide us in maintaining a standard which to-day is law.

Such examinations as have been undertaken have been made upon articles and preparations with which we are all familiar and while in some cases the results obtained are surprising, yet in the main we can surely report an excellent condition.

Your chairman has made no effort to influence in any way the work of the other members of the committee, feeling that they realized, as well as he, existing conditions and were fully capable of selecting their own paths to work along and of bringing out data that would be representative of the true state of affairs.

The report, while not voluminous in words, represents in the whole the examination of a large number of specimens and the devotion of considerable time to the work.

The data submitted by Dr. Joseph Weinstein is of extreme interest, and is given herewith in a condensed form. He selected ten articles and the field he worked in, without doubt, shows the thought he has given the matter as well as an intimate knowledge of good and bad.

Five samples of gallic acid were collected and examined. Three conformed to the standard and two contained tannin.

Four samples of adeps lanæ; three were standard and one contained over 40 per cent. of water.

Aqua ammoniæ fortior, five samples, all of which ranged from 10 to 25 per cent. of gaseous ammonia, none reaching the standard of the Pharmacopœia.

Pancreatin, four samples, two of which failed to come up to the U. S. P. test.

Spiritus ammoniæ, fifteen samples were collected—in three stores sale was refused—eleven were spiritus ammoniæ aromaticus, and four, aqua ammoniæ.

Tincture vanillæ, five samples; two made from vanillin.

Alcohol, twelve samples; eight contained wood alcohol. Some

of these specimens were labeled "acetone alcohol," and others "columbian spirits."

Prescriptions of ichthyol and water, two ounces of each, six samples; three of which were deficient in ichthyol.

Emulsion asafetida, six samples; two appeared to consist of water with just sufficient asafetida to make a milky mixture. Serum praeeparatum, six samples, two of which consisted of mixtures of lard and wax.

In submitting the findings of Dr. Weinstein, the chairman wishes to extend to him his thanks for the interest he has taken in the work of the committee, for the time he has devoted to this work and for his foresight in selection of material.

Your chairman has devoted his researches almost exclusively to the examination of crude and powdered drugs, feeling that the members of the association would consider it of vital importance to possess definite knowledge of the reliability of articles which are the basis of so many of the preparations official in the Pharmacopoeia.

The results of these examinations which are given below will speak for themselves, and will demonstrate in a rather conclusive manner if the retailer to-day is being held up by the other fellow selling him his inferior and adulterated drugs.

The chairman has been tempted to incorporate in his report the results of his labors as chemist to the State board of pharmacy; the results he has obtained in the analysis of hundreds of samples purchased from the retailers; but inasmuch as said board makes its report to the State association, he feels that any such incorporation in the committee report is unnecessary.

The matter of the U. S. P. standard for gum asafetida has often been discussed in the journals and scientific meetings, and for this reason more time was devoted to this article than to any other one. Twenty-three specimens were examined, seven for percentage of ash and alcohol-soluble matter, and sixteen for alcohol-soluble matter alone. The highest ash content obtained was 37.32 per cent. and the lowest 19.60 per cent., with an average for the seven specimens of 27.10 per cent. U. S. P. standard is not more than 15 per cent. The highest alcohol-soluble content was 76.15 per cent.; the lowest, 38.30 per cent.; with an average for twenty-three specimens of 53.22 per cent. U. S. P. standard, "not less than 50 per cent."

Hydrastis, twelve samples: Hydrastine, lowest, 2.51 per cent.; highest, 3.21 per cent. U. S. P. standard, "not less than 2.5 per cent."

Aconite root, two samples: Aconitine, lowest, 0.512 per cent.; highest, 0.540 per cent. U. S. P. standard, "not less than 0.50 per cent."

Colchicum seed, four samples: Colchicine, lowest, 0.482 per cent.; highest, 0.602 per cent. U. S. P. standard, not less than 0.45 per cent."

Colchicum corm, three samples: Colchicine, lowest, 0.334 per cent.; highest, 0.349 per cent. U. S. P. standard, "not less than 0.35 per cent."

Pilocarpus, one sample: Alkaloids, 0.676 per cent. U. S. P. standard, "not less than 0.50 per cent."

Jalap root, two samples: Total resin, lowest, 6.51 per cent.; highest, 10.06 per cent.; resin soluble in ether, lowest, 1.26 per cent.; highest, 1.32 per cent. U. S. P. standard, "not less than 7 per cent. of total resin, of which not more than 15 per cent. should be soluble in ether."

Gum benzoin, three samples: Ash, 1.55 per cent., 2.10 per cent., 2.13 per cent.; alcohol-insoluble matter, trace, 21.60 per cent., 33.67 per cent. U. S. P. standard, "almost wholly soluble in five parts of warm alcohol," and "not more than 2 per cent. of ash."

Ipecac root, ten samples: Alkaloids, lowest, 1.73 per cent.; highest, 2.23 per cent. U. S. P. standard, "not less than 1.75 per cent."

Gum guaiac, three samples: Ash, 2.21 per cent., 2.42 per cent., 0.20 per cent.; acid number, 72.46, 79.03, 73.46; alcohol-insoluble matter, 8.70 per cent., 16.39 per cent., 0.34 per cent. U. S. P. standard, ash, "not more than 4 per cent."; acid number, "not less than 70 nor more than 80"; alcohol-insoluble matter, "not more than 15 per cent."

Cinchona bark, red, one sample: Total alkaloids, 6.228 per cent. U. S. P. standard, "at least 5 per cent."

Cinchona bark, yellow, two samples: Total alkaloids, 6.23 per cent., 5.40 per cent. U. S. P. standard, "at least 5 per cent."

Scopola root, one sample: Mydriatic alkaloids, 0.4592 per cent. U. S. P. standard, "not less than 0.5 per cent."

Belladonna root, one sample: Mydriatic alkaloids, 0.5510 per cent. U. S. P. standard, "not less than 0.5 per cent."

Belladonna leaves, three samples: Mydriatic alkaloids, 0.229 per cent., 0.304 per cent., 0.602 per cent. U. S. P. standard, "not less than 0.30 per cent."

Henbane, two samples: Mydriatic alkaloids, 0.091 per cent., 0.075 per cent. U. S. P. standard, "not less than 0.08 per cent."

Stramonium, one sample: Mydriatic alkaloids, 0.821 per cent. U. S. P. standard, "not less than 0.25 per cent."

Opium, granulated, one sample: Morphine, 12.002 per cent. U. S. P. standard, "not less than 12 per cent. nor more than 12.5 per cent."

This report was received in due order, comment being made by Dr. Rusby, Mr. Raubenheimer and Prof. Kahn. Dr. Rusby brought out some of the reasons for the unsatisfactory reports heard concerning preparations of asafetida. The other two commenters chiefly condemned the use of wood alcohol in medicines whether for internal or external use.

SCHOLARSHIPS.

A. S. Wardle, of the committee on free competitive scholarships, presented a report in which was outlined the plan under which the scholarships offered by the association were awarded. This plan based the rating of applicants upon their educational qualifications, personal character, and experience. It was announced that in the next year

the committee would award four scholarships, two at the Albany College of Pharmacy, and one each at the Brooklyn College of Pharmacy and the College of Pharmacy of the City of New York.

The report was duly received, and some discussion ensued as to the relative advantages of first-year and second-year scholarships, the contentions being rather evenly matched.

Dr. W. C. Anderson, of Brooklyn, presented the following report for the committee on U. S. P. and N. F. propaganda:

REPORT OF PROPAGANDA COMMITTEE.

The services of your committee on U. S. P. and N. F. propaganda have been at the disposal of the members of the association during the past year, but, notwithstanding our general notification to that effect and urgent appeal for activity in particular instances, few opportunities have been given for advancing this most important and valuable work on the lines approved by this association.

Our chairman's connection with the Kings County Pharmaceutical Society has enabled him to assist that organization in carrying on the most aggressive and beneficial campaign of the State or even the nation. The joint meetings between physicians and pharmacists inaugurated by this society some years ago and continued from year to year, have been augmented by the employment of a representative who makes regular calls upon physicians and directs their attention to the advantages of prescribing U. S. P. and N. F. drugs and preparations, at the same time leaving with each physician samples of seasonable U. S. P. and N. F. preparations of the pharmacist's own manufacture. A new feature that has been installed during the past year by this society is the distribution to the members of the society of postal cards upon which are printed the formulas for a number of U. S. P. and N. F. preparations and a statement of some particular points concerning the same. A new supply of cards with different formulas and statements is provided each month and the members in turn mail these cards to the physicians in their section of the city. This provides about as complete a system of propaganda work as it seems possible to devise, for by it every physician must be reached sooner or later, some once, some twice and most of them many times.

PROPAGANDA MEETINGS ATTENDED.

As the representative of the New York State Pharmaceutical Association the chairman of this committee attended and took part in a most enthusiastic and largely attended propaganda meeting of physicians and pharmacists of Richmond County that was held at West New Brighton, N. Y., in May. This meeting was called at the request of the Richmond County Medical Society and developed an intensely interesting discussion and produced valuable and we trust lasting results. The physicians passed strong resolutions calling upon their constituents to desist, as far as possible, from dispensing their own remedies, and recommending due consideration for ethical prescribing and the general use of U. S. P. and N. F. drugs and preparations; and it was decided that a committee representing the physicians and one representing the pharmacists should confer and formulate plans for a more general recognition of the rights and privileges of each and more cordial relations between the representatives of the two professions.

Your committee was also represented at the joint meeting of physicians and pharmacists that was held at the Academy of Medicine, New York city, May 25th, 1911, and by special invitation at one of the largest propaganda meetings ever held, which took place at Cincinnati, Ohio, early in January.

Other propaganda meetings of which your committee has no knowledge may have been held in this State during the year, but we believe it will be conceded that even with every meeting accounted for and all the work recorded, a lack of proper recognition of the importance of the propaganda movement has been shown. A general survey of the propaganda spirit throughout the State shows only passing concern and irregular spasmodic action in reference to a matter which if considered in all its relations to the practice of pharmacy must impress every thoughtful pharmacist with its vital importance and value.

PROFESSIONAL AND COMMERCIAL PHARMACY.

No one will deny the fact that the practice of pharmacy embraces both professional and commercial activities, but only those who have lost all regard and consideration for the position and honor of their chosen occupation and have buried their dignity and pride under an avalanche of commercial ideas and practices will attempt to contend that professional pharmacy should be sacrificed in order that more time may be given to the development of profit producing commercialism.

The recognition given the pharmacist and the position he shall occupy must necessarily depend upon the conditions which exist in the practice of pharmacy. If that practice is entirely commercial he must be content with the position of the ordinary tradesman, for, while he may have the training, education, and ability that will enable him to occupy a more exalted position, the world judges men by what they do rather than what they are capable of doing. If, however, those professional activities which always have been and always should be maintained in the practice of pharmacy shall continue to be an important part of the daily work of the pharmacist, the position given him as a professional man and recognition accorded him because of his ability and importance will ever be secure.

EFFECT OF PROPAGANDA WORK ON PROFESSIONAL PHARMACY.

It was for the purpose of maintaining these professional activities in the practice of pharmacy and securing for the physician, the pharmacist and the public, the splendid benefits that must accrue therefrom, that the U. S. P. and N. F. propaganda work was inaugurated.

It is generally conceded that the true professional practice of pharmacy must be to a very great extent what the physician makes it. Propaganda work fosters greater interest on the part of the physician, overcomes prejudice and lack of confidence that is often caused by misrepresentations, shows the true value of U. S. P. and N. F. drugs and preparations and causes the physician to be most considerate of his method of prescribing and particular about the remedies he prescribes.

Differences and misunderstandings between physicians and pharmacists sometimes exist and operate to the disadvantage of each. Propaganda work rectifies these differences, corrects the misunderstandings and cultivates confidence and more cordial relations. In fact, propaganda work is the most potent factor to-day in securing necessary, worthy and lasting benefits for professional pharmacy. It is the only available means by which we can effectively check the inroads that are being made into our professional practices and secure for pharmacy that consideration, recognition and support to which it is justly entitled.

It is a line of work that is free from objectionable features, benefits alike the large business and the small business, the city pharmacist and the country pharmacist, and should receive the true enthusiastic support of all.

APPEAL FOR MORE PROPAGANDA MEETINGS.

We earnestly appeal to every pharmacist in the State to make it his personal business to see that one or more propaganda meetings are held in his city or town during the coming year.

There is great danger in drifting with a tide that is carrying one upon a barren shore or destructive rocks, and, as we cannot fail to recognize the fact that recent tides have not been carrying our pharmaceutical ship in safe directions, each will fail in his solemn duty if he does not aid in stemming this tide by assisting in pressing forward the powerful and effective propaganda wave.

The time is ripe, physicians are in a most receptive mood and New York State with a State pharmaceutical association having a most enviable record for splendid achievements in pharmaceutical affairs should take and maintain the lead in a work that means so much to all.

Dr. Anderson also explained some of the details of the work in Kings county. C. H. Lehmann recounted the experiences of the Richmond county druggists in this work, and Messrs. Schlesinger and Wiesendanger told of the propagandic movement in Westchester county.

The report was received in the regular manner.

TRAVELER'S AUXILIARY.

A visit by the Commercial Travelers' Auxiliary occurred at this time. W. R. Jackson acted as spokesman for the visitors and suggested that the next meeting be held at Rochester in the belief that the association would be the gainer numerically and otherwise.

He also introduced the following newly elected officers of the C. T. A.: President, C. P. Dickson; vice-president, D. M. Woodard; secretary and treasurer, R. W. Du Puy; executive committee, H. R. Stearns, C. W. Coleman and C. F. Kelly; entertainment committee, L. E. Treat, W. R. Jackson and W. F. Whalen.

Peter Diamond, of New York, welcomed the delegation and invited all traveling men to join the N. Y. S. P. A. And the visitors were formally thanked for the assistance they had given to the association.

N. A. R. D. MATTERS.

Thomas Stoddard, of Buffalo, presented a report by the committee considering the report of the delegates to the 1910 convention of the National Association of Retail Druggists. The national body was commended for its work for co-operation between doctors and druggists; re-affiliation under the existing plan was recommended; the N. A. R. D., it was urged, should become more active in legislative matters, using expert assistance and endeavor to get the strongest committee on legislation.

In the discussion of these recommendations it transpired that the present plans of the N. A. R. D. would tend to secure the results desired by the committee. H. B. Guilford, of Rochester, president of the N. A. R. D., set forth at length the projects of the organization. The report of the committee was duly received, with the approval of the recommendations.

At this juncture Dr. Muir suggested that the expenses of the three delegates of the N. Y. S. P. A. to the N. A. R. D. meetings be paid—the present plan is to pay the expenses of the chairman alone. After a great deal of discussion the suggestion was withdrawn.

Mr. Wardle then reported for the committee on time and place of the 1912 meeting, favoring Sacandaga Park. Dr. Muir favored this suggestion, but Messrs. Wiesendanger and Guilford urged the selection of Rochester. The committee's report was approved.

For the committee on the president's address Prof. Anderson presented the following report to which very little objection was made and which was adopted:

DECLARATION OF POLICY.

The address of the president, the report of the legislative committee and various resolutions that were referred to our committee have been carefully considered and we recommend the adoption of the following:

Resolved: That this association approves the sentiment expressed in the address of the president in relation to the State board of pharmacy, yellow journalism, legislative work, the committees, the National Association of Retail Druggists, the Commercial Travelers' Auxiliary, and the press.

Resolved: That this association hereby reaffirms its declaration that local associations throughout the State should not introduce bills in the legislature affecting the practice of pharmacy without first submitting the same for consideration by this association or its legislative committee.

Resolved: That the secretary be instructed to send a letter to each pharmacist of the State who is not a member of this association, which shall contain a statement of the legislative measures that have been introduced during the past year, the effect their enactment would have upon his business, and the action of this association upon the same, at the same time soliciting his application for membership.

Resolved: That in addition to encouraging the splendid work being done by the Commercial Travelers' Auxiliary in securing new members for the association, the executive committee be directed to secure the services of a canvasser or canvassers to secure new members for this association at such a rate of compensation as that committee shall determine.

Resolved: That a letter expressing the appreciation of this association for services rendered, be sent to each of the following assemblymen: Edward Merritt, of St. Lawrence; F. W. Hammon, of Syracuse; O. S. Beach, of Tigua county; H. E. Allen, of Oneida county; and Charles Brown, of Cortland; Senator T. Harvey Ferris, of Utica.

Resolved: That this association heartily endorse the action of the legislative committee upon the various bills affecting pharmacy, whether national, State or local, that have been pending during the past year.

Resolved: That our legislative committee take such steps as may be necessary to have the term "Wood Naphtha" apply to the drug now commonly known as "Wood Alcohol."

Whereas, many people commit suicide or homicide through the use of poisons, and official attention having been drawn to this, legislation for the restriction of their sale is proposed, directed especially against branches of the drug trade, and

Whereas, most poisonous substances so employed, are either disinfectants or chemicals used in the arts, and sold in other lines of business, where it would be impossible to comply with methods of sale affording effective control of such articles, and

Whereas, the real trouble is the fact that the name of the poison, and as far as possible, the dose employed, as well as fairly accurate information as to the proper dose to employ, is usually printed in the newspapers, inducing morbid people and criminals to use these poisons, through reading such statements, therefore be it

Resolved: That the members of the New York State Pharmaceutical Association urge upon the coroners and other officials of their State, and especially upon the proprietors of all newspapers published within the State, the importance of refraining from furnishing to the public the name of the poison used in any case of suicide or homicide by poison, and especially giving instructions regarding the method of using such poisons, and the amount constituting a fatal dose.

It is unfortunate that so many of the assay processes of the present Pharmacopoeia on drugs are open to criticism and that concordant results can only be obtained by long experience in this particular field of work. Criticism that is specific has already been brought before the respective committees having this phase of the work in hand, and without doubt the next Pharmacopoeia will be more of an open book to those who are comparatively beginners in drug assay, and methods will be given that can more easily be followed with accurate results.

Your committee respectfully submits this report for your consideration and approval, appreciating that it deviates to some degree from other reports in past years, but as members of said committee we feel that the data incorporated is material in many respects.

The committee's action in disapproving the suggestions for the amendment of the pharmacy law which had been made by the Italian Pharmaceutical Association of the State of New York, was concurred in by the convention. The Italian organization, however, was assured that the State association would assist in an endeavor to correct the dispensary evils against which the amendment was aimed.

The sitting then adjourned for two minutes.

Sixth Session, Thursday Afternoon.

When the meeting was again convened Dr. Rusby read by title a paper on "Suggestions for Governmental Rectification of Unfit Drugs before Admission"; and the paper was referred for publication.

The consideration of the Turley bill was made a special order of business for the evening's sitting.

The election of officers followed, the results being as stated on page 385. No opposition was encountered by any of the nominees.

Adjournment was taken at 1:20 o'clock.

Final Session, Thursday Evening.

At six o'clock, Thursday evening, the convention took up the discussion of the Turley bill as passed unanimously by the State assembly. The bill was read by the secretary

and characterized by Dr. Muir as still unsatisfactory. There was not much discussion. Everybody seemingly was agreed that the measure was not a satisfactory one, a fair one, or a potent one. Several suggestions were made with a view to enlisting the aid of the medical societies in opposition to the bill, and the effectiveness of getting political aid in defeating the measure was pointed out.

The result was the instructing of the legislative committee to oppose the bill in the senate and before the governor. The members were also urged to use their individual influence against the bill.

C. B. Sears, for the committee on pharmacy and queries, read by title the following papers: "The Misuse of Wood Alcohol," by Otto Raubenheimer, of Brooklyn; and "Ideals," by L. Marmor, of New York. The papers were referred for publication.

Unanimous approval was given to a motion by Prof. Anderson to set aside the resolution adopted at the 1910 convention, which was in effect that no member of the board of pharmacy should be appointed as a member of the association's legislative committee.

The new officers were then installed, Messrs. Weygant and Stoddart acting as ushers; and the convention was adjourned at 7:55 P. M.

The Entertainment.

Although its plans several times went a-gley, the local committee, with the assistance of the Commercial Travelers' Auxiliary, furnished a series of entertainments that were quite satisfactory. There were boat rides galore, card parties, dancing, drawings for prizes, and, of course, the enjoyable reception by the president.

Greatest of all amusements was the game of baseball (?) between teams representing the association and the auxiliary. The pill-pounding "Athletics" pounded the leather-coated bolus "so carefulee and completelee" that they piled up 29 tallies while the traveler "Cubs" were scraping up 8. Sure 'twas lack of practice—wait 'til next year.

Many fishing parties were daily employed in luring the finny monsters of the St. Lawrence. Some good strings were brought in.

Instruction, as well as entertainment, was found in the display of wild medicinal plants of the Alexandria Bay region, some thirty specimens having been collected and arranged by Prof. William Mansfield and Hugh Craig.

News of Other State Associations.

July Meetings of Associations.

MINNESOTA, 11th to 13th, at Duluth.
NORTH CAROLINA, 12th to 14th, at Greensboro.
OHIO, 11th to 14th, at Cedar Point.
OREGON, 12th to 14th, at Seaside.
SOUTH CAROLINA, 5th and 6th, at Chick Springs.
TENNESSEE, 11th and 12th, at Nashville.
VIRGINIA, 11th to 14th, at Roanoke.
WEST VIRGINIA, 18th to 20th, at Webster Springs.

California Association.

Stirring times obtained during the fifth annual meeting of the California Pharmaceutical Association which occurred at Sacramento, May 16th to 19th. Education and legislation were the rocks upon which the attendants split, and the result was the prevailing of the conservative spirit.

The discussion centered about the report on the conference of the California Board of Pharmacy and a committee from the association, which had to do with changes in the pharmacy law. Two reports were offered. The majority report was read by J. H. Flint, and J. G. Munson reported for the minority. The majority represented those who were opposed to requiring that candidates for registration in pharmacy be graduates of pharmaceutical schools and the recognition of diplomas in lieu of examination. The majority report was adopted, and the question of changes in the law was left to a committee.

A special committee was provided to consider ways and means of publishing the Proceedings of the association.

The papers and addresses were many as the following list shows: "Pharmacy as a Profession," by Albert Schneider; "The Pharmaceutical Laboratory," by F. W. Nish; "Conservation as Applied to Pharmacy," by G. H. P. Lichhardt; "The Standing of the Pharmacist," by R. A.

Leet; "Drug Store Management," by J. A. Sanford; "State Laws Governing Pharmacy," by J. G. Munson; "A New Pharmacy Law," by A. L. Leber; "Women in Pharmacy," by Mrs. J. B. Winslow; "U. S. P. and N. F. Propaganda," by H. G. Dean; "Veterinary Sera and Pharmacy," by C. M. Twining; "Boosting the Prescription Business in a Residence District," by W. E. Brennan; "Relation of the Soda Fountain to the Drug Store," by A. L. Rich; "Disinfectants and Insecticides," by R. R. Rogers; "The Evolution of Pharmacy," by C. H. Ward; "Biologies," by F. I. Lachenbach; and "The Administration of the Pure Drugs Act," by M. E. Jaffa.

Eighty-nine new names were added to the roll of members who, the secretary reported, numbered 406.

Amateur theatricals, a banquet and a boat ride were the leading features of the entertainment program.

Officers were elected as follows: President, I. H. P. Lichhardt, of Sacramento; vice-presidents, J. A. Hughes, of Bakersfield; and F. F. Green, of San Francisco; secretary and treasurer, K. B. Bowerman, of San Francisco; trustees, F. B. Taylor, of Oakland; J. B. Stocker, of Sacramento; Edward Baer and L. M. Aguirre, both of San Francisco; F. N. Drake, of Los Angeles; J. A. Sanford, of Stockton; and W. S. Kimball, of Bakersfield.

Monterey was selected as the 1912 meeting place; the date will probably be in April.

Connecticut Association.

Rainy weather was responsible for the very slim attendance at the meeting of the Connecticut Pharmaceutical Association held June 13th and 14th, at Indian Neck. However there were about 200 present at the banquet on the afternoon of the second day.

Liquor laws as they affect pharmacists were the subject of considerable discussion. This resulted in the adoption of an amendment to the by-laws of the association providing that any member convicted of violating the excise law would be dropped from the roll.

Officers were elected as follows: President, H. M. Leron, of Norwich; vice-presidents, S. M. Allen, of South Norwalk; and M. F. Hope, of New Haven; secretary, A. E. Lathrop; and treasurer, K. O. Cyrus, of Bridgeport.

Delaware Society.

The twenty-fifth annual meeting of the Delaware Pharmaceutical Society was held June 1st, at Wilmington. The business transacted was largely routine; a resolution was adopted expressing opposition to the attempt to levy a stamp-tax on ready-made medicines and toilet wares.

A boat trip to Philadelphia and return was enjoyed in the afternoon and evening. Among the visitors were Dr. McFadden, from the Maryland association, and Prof. I. V. S. Stanislaus, of Philadelphia.

Officers were elected as follows: President, W. R. Keys, of Clayton; vice-presidents, Nora V. Brendle, for New Castle county; Harry McDowell, for Kent county; and P. C. Murray, for Sussex county; secretary and treasurer, J. F. Belt, of Wilmington; directors, J. T. Challenger, J. O. Bosley, J. M. Harvey, W. R. Keys, and James Chipman.

Georgia Association.

The thirty-sixth annual meeting of the Georgia Pharmaceutical Association was held at Indian Springs, June 13th and 14th.

A large number of members were in attendance and many papers were read and discussed.

Officers for the ensuing year were elected as follows: President, John Montgomery, Jr., of Thomasville; first vice-president, E. W. Johnson, of Newnan; second vice-president, J. W. Ridout, of Macon; third vice-president, Miss Strong, of Atlanta; secretary, T. A. Cheatham, of Macon; treasurer, T. B. Rice, of Greensboro.

The place for the next meeting was not decided on, the executive committee will select it.

Idaho Association.

At the fifth annual meeting of the Idaho Pharmaceutical Association held at Pocatello, May 10th to 12th, a statement was prepared for publication in which was set forth the position of the organization with reference to the enforcement of the anti-narcotic law of the State. The impression existed that by the utterances of the food and drugs officials the druggists had been put in a wrong light as to their attitude toward the efforts of the board of health to stop the illegitimate sale of narcotics, and the

statement was to the effect that druggists were not law-breakers, but were heartily in accord with the board's endeavors.

During the meeting the visitors were entertained at a banquet and ball, and the traveling salesmen defeated the druggists at baseball. There were other athletic competitions for prizes.

Officers were elected as follows: President, J. J. Beuhler, of Pocatello; vice-presidents, W. H. Anderson, of Soda Springs; and Clyde Thurston, of Payette; secretary, S. S. Ferguson, of Pocatello; and treasurer, H. H. Whittlesy, of Pocatello.

Next year's meeting will be held at Boise, May 9th to 12th.

Indiana Association.

The thirtieth annual meeting of the Indiana Pharmaceutical Association was held at Indianapolis, June 13th to 15th.

Among papers read were the following: "Legislative Procedure," by J. M. Barrett; "The New Law and Some Things We Need," by W. H. Rudder; "Making and Collecting Accounts," by M. F. Doherty; "The Troubles of the Druggist and the Bright Side of the Business," by H. E. Zimmer; "Proprietor, Clerk and Customer—their Relation to Each Other," by F. D. Werner. By request Dr. J. N. Hurty re-read a paper presented at a former meeting on "The Relation of the Druggist to the Community in which he Lives."

There were general discussions on window displays and other forms of advertising.

Quite an addition to the Hallberg fund was made by members contributing individually, the association also giving twenty-five dollars.

A memorial meeting was held in honor of Leo Eliel who died during the year.

F. W. Meissner was endorsed for appointment as a member of the board of pharmacy.

Officers were elected for the ensuing year as follows:

President, T. C. Bayse, of Rockport; first vice-president, Frank Walcott, of Rushville; second vice-president, S. D. Waggoner, of Terre Haute; third vice-president, Eugene Brickley, of Anderson; secretary, Maurice P. Schwartz, of Indianapolis; treasurer, Frank H. Carter, of Indianapolis. Executive committee—E. W. Stocky, A. C. Pilkenton, and M. A. Stout.

The next meeting will be held at Terre Haute.

Illinois Association.

Rock Island was the place, and June 10th to 12th, the date, the event being the thirty-second annual meeting of the Illinois Pharmaceutical Association. The attendance was large; the good time was continuous; and, not the least, the session was replete with interest and profit.

President G. C. Lescher in his annual address dealt with the important questions of organization, trade interests, education and propaganda. He endorsed the prerequisite requirement; recommended that a strong protest be made against the imposition of a stamp tax; urged the pharmacists of the State to join the two great national organizations; and advised a more stringent enforcement of the pharmacy law to secure which will require the active co-operation of every law-abiding pharmacist.

The report of Secretary W. B. Day showed a membership of about 1100. Fifty-three new members were elected at the meeting. Treasurer G. C. Bartells reported a balance on hand in the general fund of \$969.94, and in the permanent fund of \$600.

Reports were had from the advisory board of the school of pharmacy of the University of Illinois and the committee on appropriation. It was reported that the legislature had made an appropriation to the school of \$10,000 a year for two years. A very practical and much appreciated report was that of the committee on trade interests presented by E. H. Ladish, of Chicago. Other interesting reports were by G. H. Schrbeck, on the records of the board of pharmacy; by C. H. Avery, on the Illinois Board of Pharmacy; by G. R. Mills, on U. S. P. and N. F. propaganda; and by T. H. Potts, on the National Association of Retail Druggists.

The report of the legislative committee, presented by J. H. Wells, was the most discussed feature of the meeting. Pharmacal-legal matters—those not touched upon in the report included—were considered in arguments and criticisms by F. C. Dodds, Wilhelm Bodemann, Fritz Lueder,

and J. P. Crowley. The committee's report was finally adopted.

By resolution the association disapproved the attempt to levy a stamp-tax on medicines and other proprietary preparations.

Another resolution deplored the publication by newspapers of the details of suicides by poisoning, the opinion being that this publicity was harmfully suggestive to the public.

For essays on the allotted subject, "How Can the Usefulness of Our Association to the Pharmacists of the State be Increased?" O. F. Niethammer and P. J. Forbich received prizes.

A contribution of \$50 was made to the Hallberg memorial fund.

The association renewed its affiliation with the N. A. R. D.

The association's nominees to the governor for his consideration in appointing a member of the board of pharmacy are C. A. Storer, Joseph Forbrich, J. C. Wheatcroft, H. A. Stillman, and D. D. Moore. The nominees for the position on the advisory board of the school of pharmacy are Herman Fry, L. P. Larsen, O. D. Ehrlicher, A. B. Clark, and W. C. Simpson.

The election for officers resulted in the choice of the following:

President, C. H. Achelpohl, of Quincy; vice-presidents, J. H. Wells, of Chicago; R. E. Dorland, of Decatur; and A. J. Riess, of Rock Island; secretary, W. B. Day, of Chicago; and treasurer G. C. Bartells, of Camp Point.

The entertainments were many and fine: boat trips, automobile rides, a card party, a dance, and an entertainment. Greatest of all was the interstate athletic meet with the Iowa association, which was in session at the same time across the river. There were all sorts of contests for men, women and children, the mammoth attraction being a near-baseball game that was too-much Iowa.

Springfield was selected as the 1912 meeting place.

Iowa Association.

From all over the State druggists congregated at Davenport, June 10th to 12th, attending the thirty-second annual meeting of the Iowa Pharmaceutical Association. The meeting all in all was a pleasant and fruitful one.

The annual address of President W. R. Beck was a comprehensive review of the year's pharmacal movements and achievements, particularly the work along legislative lines.

According to the report of Secretary J. M. Lindley, the members of the association number 462. And the report of the treasurer's office showed a balance on hand of \$750.

T. H. Potts, secretary of the National Association of Retail Druggists, was one of the chief speakers. He set forth the advantages secured by the N. A. R. D.; urged co-operation of druggists and doctors; condemned dispensing by physicians, and denounced cut prices.

W. H. Torbert, of Dubuque, rapped the nostrum evil as an address.

Legislation was given a deal of attention in the discussion. A suggestion that the members be taxed for the purpose of having a representative to look after the druggists' interests during the legislative sessions was not approved.

Trolley, automobile and boat trips were provided for the visitors. Also were there a smoker, a dance, and a day of athletics with the Illinois association.

Officers were elected as follows: President, N. F. Reed, of Ottumwa; vice-presidents, William Lage, of Davenport; Daniel Haas, of Dubuque; and A. J. Kilmer, of Mason City; secretary, Albert Falkenhaimer, of Algona; treasurer, J. M. Lindly, of Winfield; executive committee, Frank Shane, of Eldon; Milo Johns, of Clinton; and George Petersen, of Storm Lake.

Sioux City won on the vote for next year's meeting place.

Kansas Association.

The reading of a number of excellent papers and considerable lively discussion were features of the thirty-second annual meeting of the Kansas Pharmaceutical Association held at Topeka, May 23d to 25th. A more than usually large number of persons were in attendance, and the liveliest interest prevailed.

In the discussion of legislative matters the arguments were quite warm at times. A plan was formulated for more effective co-operation among the members in legislative considerations.

An appropriation of \$40 was made to the Hallberg memorial fund.

Strenuous work on the part of the travelers' auxiliary had secured eighty-nine new members who were elected during the meeting.

Officers were elected as follows: President, Harry Dick, of Lawrence; vice-president, C. C. Reed, of Salina; secretary, David von Riesen, of Marysville; and treasurer, W. J. Bangs, of Madison.

The 1912 meeting will be held May 21st to 23d, at Atchison.

Michigan Association.

One of the most striking events at the 1911 meeting of the Michigan Pharmaceutical Association was the concurrence in President E. E. Calkin's approval of the parcels-post idea. The association had at previous meetings declared its opposition to a parcels-post.

The meeting was held at Battle Creek, June 6th to 8th, and was very well attended. The discussions were very interesting, as were the papers, the following being the subjects and speakers: "The Retail Druggist and His Profits," by Harry B. Mason; "The Circulating Library," by C. A. Weaver; "New Processes for U. S. P. and N. F. Preparations," by L. A. Seltzer; "N. F. and U. S. Propaganda," by W. A. Hall; "Selling Your Own Toilet Preparations," by E. E. Calkins.

Under the auspices of the travelers' auxiliary an enjoyable series of entertainments was carried out.

Officers were elected as follows: President, E. W. Austin, of Midland; vice-presidents, E. C. Varnum, of Jonesville; C. P. Baker, of Battle Creek; and J. P. Lipp, of Blissfield; secretary, M. H. Goodale, of Battle Creek; treasurer, J. J. Wells, of Athens; executive committee, E. J. Rogers, of Port Huron; L. A. Seltzer, of Detroit; S. C. Bull, of Hillsdale; and H. G. Spring, of Unionville; and trustee of the memorial scholarship fund, C. F. Mann, of Detroit.

Missouri Association.

The thirty-third annual meeting of the Missouri Pharmaceutical Association was held at Cape Girardeau, June 13th to 16th. This was the first time the association has met in the southeastern portion of the State. The attendance was above the average and the meeting a success. The local pharmacists and other business men gave the association a complimentary trip on a palatial Mississippi River steamboat from St. Louis to Cape Girardeau. This was a novel and much appreciated feature of the 1911 meeting.

The increase in membership was a record-breaker, the list reaching 166. H. W. Servant, of the board of pharmacy, added 101 of these names.

The following papers were read: "The Status of Pharmacy in our State during my Professional Career," by Francis Hemm. "An Ancient Guild of Grocer-Apothecaries," by Leo R. Suppan. "An Egyptian Glass Bottle," by J. F. Llewellyn. "Joplin Scintillations," by the committee on papers and queries. "Price Protection," by H. O. A. Huegel. "The Qualifications of Members of State Boards of Pharmacy," by Leo R. Suppan. "The Missouri Pharmaceutical Association Meeting of 1886," by H. M. Whelpley. "The Hospital Drug Store," by the committee on papers and queries. "Soda Fountain Fruits," by L. Lieberstein. "An Uncommon Prescription," by Mrs. M. M. Whitney. "The Preparation of Salvarsan Solutions," by Wm. K. Ilhardt. "Greek Folk Medicine," by J. F. Llewellyn.

The board of pharmacy came in for much discussion and a resolution was passed urging the board to add a practical examination feature to its tests for registration as soon as possible or practicable. The term of Charles Gietner as a member of the board expiring July 1st, the association nominated Otto Ude, Charles Gietner and G. H. J. Andreas, all of St. Louis, as candidates for the vacancy. Mr. Gietner is a Democrat and has served six years on the board. There is much speculation as to whether the Republican governor will reappoint Mr. Gietner and thus establish a bi-partisan board for the first time in the State.

Treasurer Mittelbach reported a balance of \$200.54 on hand and a net enrollment of 572 members.

Secretary H. M. Whelpley reported the distribution of 1000 copies of the 1910 Proceedings. He stated that the James H. Beal Endowment Fund amounts to \$102 and is drawing 4 per cent. interest compounded semi-annually.

The secretary's recommendation that property of historic interest be turned over to the A. Ph. A. historian or the Lloyd Library was approved.

The officers elected for the ensuing year are: President, I. Ben Miller, of Cape Girardeau; first vice-president, H. O. A. Huegel, of St. Louis; second vice-president, Jesse E. Koppenbrink, of Higginsville; third vice-president, J. A. Hummel, of New Madrid; treasurer, William Mittelbach, of Boonville; permanent secretary, H. M. Whelpley, of St. Louis; assistant secretary, Louis Lieberstein, of St. Louis. Council—Walter C. Bender, Samuel Farrar, Otto F. Claus, D. V. Whitney, and Leo Suppan. The president, permanent secretary and treasurer are ex officio members of the council.

The 1912 meeting will be held at Pertle Springs (Warrensburg), where the association has met eleven times, provided the committee on place of meeting can complete satisfactory arrangements with the proprietors of this popular summer resort.

The association voted \$50 to the N. A. R. D. and \$25 to the Hallberg memorial fund.

Nebraska Association.

The Nebraska Pharmaceutical Association held the thirtieth annual meeting at Fairbury, June 13th to 15th. The attendance was good and seventy-one names were added to the membership roll. Among the questions discussed was early closing; the majority favoring closing about 7 p. m.

Lynn Thompson, of Gordon; L. W. McConnell, of McCook; and W. G. Boyer, of York, were nominated to the governor for appointment on the board of pharmacy, one to be chosen.

Officers were elected for the ensuing year as follows: President, A. V. Pease, of Fairbury; vice-presidents, R. A. Lyman, of Lincoln; O. W. Case, of Crofton; Orel Jones, of Oconto; W. Brookley, of Edgar; and D. J. Hoyer, of Wood River; treasurer, D. D. Adams, of Nehawka; and secretary, J. G. McBride, of Stella.

The next meeting will be held at Beatrice.

New Jersey Association.

The annual meeting of the New Jersey Pharmaceutical Association was held at Asbury Park, June 13th to 16th, the first day being given to a meeting of the executive committee and a reception by the president.

The executive committee reported a net membership of 755, an increase of 12 over the last report. Six hundred and fifty-two were active members; 82 associate; and 21 honorary.

Papers were read as follows: "The Fifth Revision of the German Pharmacopoeia," by Geo. M. Beringer. "Fluidextract of Echinacea," by Geo. M. Beringer. "Standard Surgical Dressings," by Fred B. Kilmer. "Headache Remedials," by Dr. P. E. Hommel. "A Liniment Window Display," by Chas. W. Holzhauser. "Powdered Bland's Mass," by G. M. Beringer, Jr. "A Review of U. S. P. and N. F. Propaganda, Particularly as Applied to Results in Modern Dispensing," by Henry Schmidt. "The N. F. Pepsin Preparations," by Dr. P. E. Hommel. "The U. S. P. Iron Preparations," by Dr. P. E. Hommel. "The Necessity for Pharmacists to Become Interested in Legislation Relating to Pharmacy," by Morris H. Albach. "The Preparation of the Neutral Suspension of Salvarsan," by Geo. M. Beringer, Jr. "Where Does the Average Druggist Get His Time?" by Charles H. LaWall. "Essence of Pepsin, N. F.," by A. F. Marquier.

The officers elected for the ensuing year are: President, William E. Warn, of Keyport; vice-president, Henry E. Wensch, of Montclair; second vice-president, John D. Case, of Somerville; secretary, Frank C. Stutzlen, of Elizabeth; treasurer, James C. Field, of Plainfield. Executive committee, Henry E. Wensch, John N. Smith, Charles Holzhauser, Garret Byrnes, and Levi J. Farley.

The next meeting will be held at Atlantic City.

Oklahoma Association.

May 17th to 19th the Oklahoma Pharmaceutical Association met at McAlester in its sixth annual session. Various matters of moment were threshed over, the cut-price evil coming in for especial condemnation by resolution.

These following are the newly elected officers: President, W. W. Holden, of Kellyville; vice-presidents, C. A. Dow, of Pond Creek; and Mrs. Fannie Schenck, of Du-

rant; secretary, W. H. McCutcheon, of Luther; and treasurer, Dollie Singletary, of Caney.

Oklahoma City was selected as the place for the 1912 meeting.

Pennsylvania Association.

The thirty-fourth annual meeting of the Pennsylvania Pharmaceutical Association was held at Bedford Springs, June 20th to 22d.

The officers elected for the ensuing year are:

President, Joseph L. Lemberger, of Lebanon; first vice-president, Louis Saalbach, of Pittsburg; second vice-president, Jacob M. Baer, of Philadelphia; secretary, Edgar F. Heffner, of Lock Haven; treasurer, Francis H. E. Gleim, of Lebanon; local secretary, Harland J. Mentzer, of Blus Ridge; executive committee, W. A. Carpenter, of Philadelphia; Henry W. Merritt, of Plains; and P. W. Snyder, of Hollidaysburg.

The new president, Joseph Lemberger, had been treasurer for thirty-three years, having been first elected at the organization meeting.

Buena Vista was chosen as the place for holding the next meeting.

Vermont Association.

The eighteenth annual meeting of the Vermont Pharmaceutical Association was held at Burlington, June 21st and 22d. The executive committee met on the 20th and Dr. Rusby lectured on his travels in South America. At the afternoon session on the 21st he made an address on the food and drugs act.

Secretary Terrill in his report made a plea for greater promptness in the payment of dues. The expenses of the association, he said, have increased faster than the membership. The increase in membership during the nine years that he had served was 116 per cent. The number of members has increased in that time from 151 to 326. During the year two members have died—Dr. M. J. Wiltse, of Burlington, and Willis V. Bryan, of Waterbury.

The following officers were elected for the ensuing year:

President, Timothy Neville, of Vergennes; first vice-president, A. B. Anderson, of Swanton; second vice-president, F. J. Kinney, of Orleans; third vice-president, Guy C. Rocheleau, of Burlington; secretary-treasurer, W. E. Terrill, of Montpelier.

News of the Pharmacy Boards.

List of Board Secretaries.

In the following list are to be found the names and addresses of the secretaries of the various boards of pharmacy of the country. When the date and place of the next meeting of a board are known they are given also.

Secretaries are requested to keep us informed as to dates and places.

ALABAMA—October 10th, at Montgomery. E. P. Galt, Selma.

ARIZONA—November 8th, at Phenix. A. G. Hulett, Phenix.

ARKANSAS—J. F. Dowdy, Little Rock.

CALIFORNIA—July 19th, at Los Angeles; July 26th, at San Francisco. Louis Zeh, San Francisco.

CONNECTICUT—September 5th, at Hartford. J. A. Levery, Bridgeport.

COLORADO—S. L. Bresler, Denver.

DELAWARE—Albert Dougherty, Wilmington.

DISTRICT OF COLUMBIA—July 13th and 14th, at Washington. S. L. Hilton, Washington.

FLORIDA—D. W. Ramsaur, Palatka.

GEORGIA—C. D. Jordan, Monticello.

IDAHO—J. M. Starrh, Shoshone.

ILLINOIS—July 13th, at Chicago. F. C. Dodds, Springfield.

INDIANA—July 11th and 12th, at Indianapolis. W. H. Fogas, Mt. Vernon.

IOWA—August 1st, at Des Moines. E. J. Moore, Des Moines.

KANSAS—August 23d, at Winfield. W. E. Sherrieff, Ellsworth.

KENTUCKY—July 11th and 12th, at Paducah. J. W. Gayle, Frankfort.

LOUISIANA—August 4th and 5th, at New Orleans. F. A. Earhart, New Orleans.

MAINE—August 9th and 10th, at Augusta. F. W. Bucknam, Skowhegan.

MARYLAND—Ephraim Bacon, Roland Park.

MASSACHUSETTS—Every Tuesday between September 1st and July 1st, at Boston. P. J. McCormick, Boston.

MICHIGAN—E. J. Rodgers, Port Huron.

MINNESOTA—July 18th, at Minneapolis. C. T. Heller, St. Paul.

MISSISSIPPI—October 3d, at Jackson. L. H. Wilkinson, Greenwood.

MISSOURI—C. E. Zinn, Kansas City.

MONTANA—October 11th, at Great Falls. S. J. Coffee, of Missoula.

NEBRASKA—A. V. Pease, Fairbury.

NEVADA—November 1st, at Reno. R. L. Prouty, Tonöpah.

NEW HAMPSHIRE—F. H. Wingate, Nashua.

NEW JERSEY—July 20th and 21st, at Trenton. H. A. Jordan, Bridgeton.

NEW MEXICO—A. J. Fisher, Santa Fe.

NEW YORK—September 27th and 28th, at New York, Albany and Buffalo. W. L. Bradt, Albany.

NORTH CAROLINA—July 7th, at Morehead City. F. W. Hancock, Oxford.

NORTH DAKOTA—October 17th, at Fargo. W. S. Parker, Lisbon.

OHIO—F. H. Frost, Columbus.

OKLAHOMA—July 11th and 12th, at Oklahoma City. J. C. Burton, Stroud.

OREGON—F. C. Pozzi, Portland.

PENNSYLVANIA—L. L. Walton, Williamsport.

RHODE ISLAND—October 3d, at Providence. J. E. Brennan, Pawtucket.

SOUTH CAROLINA—F. M. Smith, Charleston.

SOUTH DAKOTA—July 12th, at Lead. E. C. Bent, Dell Rapids.

TENNESSEE—July 10th and 11th, at Nashville. I. B. Clark, Nashville.

TEXAS—September 19th, at Houston. R. H. Walker, Gonzales.

UTAH—July 18th and 19th, at Salt Lake City. W. H. Dayton, Salt Lake.

VERMONT—D. F. Davis, Barre.

VIRGINIA—July 25th, at Richmond. T. A. Miller, Richmond.

WASHINGTON—P. Jensen, Tacoma.

WEST VIRGINIA—A. Walker, Sutton.

WISCONSIN—Edward Williams, Madison.

WYOMING—C. B. Gunnell, Evanston.

Alabama Board.

At a meeting of the Alabama board of pharmacy held at Birmingham, May 15th, forty-seven applicants for registration were examined. The following were passed:

As pharmacists: Q. S. Adams, of Mobile; J. H. Barr, of Eufaula; Henry A. Clark, of Newbern; E. M. Davis, Jr., of Purvis, Miss.; J. B. Doughty, of Reform; Maggie E. Howard, of Mobile; C. R. Jenkins, of Montgomery; I. J. Johns, of Edwardville; J. R. Jones, of Rayville, La.; C. J. Lewis, of Blocton; J. L. Lewis, of Seal; L. E. Lokey, of Gadsden; J. G. Nixon, of Mobile; J. F. Perry, Jr., of Atmore, Arthur Pitts, of Talladega; W. O. Porter; Said Shair, of Cairo, Egypt; L. L. Yerby, of Kennedy; Habid Yonssif, of Cairo, Egypt.

As assistants: L. L. Balfour, of Mangham, La.; C. T. Beacham, of Dexter, Ga.; L. C. Berkstesser, of Auburn; R. T. Brock, of Covior; C. W. Chumley, of Collinsville; J. K. Culbreath, of Atlanta, Ga.; Alfred Dockett, of Troy; A. P. Elliott, of Eufaula; P. L. Ezell, of Atlanta, Ga.; W. L. Broover, of Chattanooga, Tenn.; A. S. Hutto, of Abbeville; W. R. Ricks, of Brunswick, Ga.; C. D. Roberts, of Shellman, Ga.; J. P. Robertson, of Birmingham; W. C. Suggs, of West Point, Ga.; T. M. Walden, of Quincy, Fla.

Hereafter the required per cent. will be 75 general average and not less than 60 on any subject for pharmacist license; and for assistant pharmacist 60 per cent. general average and not less than 40 on any subject.

The next meeting of the board will be held at Montgomery, October 10th.

Maryland Board.

J. Fuller Frames has been appointed a member of the Maryland Board of Pharmacy to succeed Louis Schulze, whose term of five years expired in May.

Mr. Frames is a graduate of the Maryland College of Pharmacy, about 54 years old and highly esteemed among his associates. He was a member of the old board of examiners of Baltimore. He also holds membership in the Maryland Pharmaceutical Association.

College Commencements.

Albany College.

At the commencement of the Albany College of Pharmacy, the following students were graduated:

Samuel Aker, Harry W. Baker, Roy E. Baker, John R. A. Balje, Jr.; Archibald W. Billings, Leon H. Bonham, William Clements, William H. Covey, William J. Dromey, Harold S. Eggers, Bernard Ettinger, John J. Goodhart, George T. Gramp, Edward J. Hamman, Percy I. Hisert, William A. Humphries, Frank W. Isles, William G. Kapp, John C. Konieczny, Daniel H. Krieger, Walter H. Lathrop, William M. Lithgow, Daniel L. Myers, Fenton B. Neal, Bernie L. Nichols, Clarence E. Ostrander, John W. Pangburn, Jr.; Louis C. Potter, William V. Reilly, Alice M. Robertson, Fred Salvione, Grover B. Sanford, Helen F. Sheehy, Henry C. Sherman, Manser T. Stone, Theodore DeWitt Wands, Cyrus G. Watson, Ida F. Weber, and Charles J. Woodruff.

Prizes were awarded as follows:

Senior prize for best final examination in all branches to Miss Helen F. Sheedy; honorable mention of Clarence E. Ostrander, and William A. Humphries.

Senior prize for best year's work in pharmacy to William A. Humphries; honorable mention of Miss Helen F. Sheedy, and Clarence E. Ostrander.

Senior prize for best year's work in chemistry to Miss Helen F. Sheedy; honorable mention of Clarence E. Ostrander, and Louis C. Potter.

Senior prize for best year's work in materia medica to Samuel Aker; honorable mention of Miss Helen F. Sheedy, and William A. Humphries.

Junior prize for best final examination in all branches to Miss Julia A. Higgins; honorable mention of John L. Hemstead, and Martin C. Dyer.

Cincinnati College.

At the thirty-ninth annual commencement exercises of the Cincinnati College of Pharmacy held June 6th, degrees were conferred as follows:

Bachelor of pharmacy on: Ernest R. Bechtol, Wm. Bleiweiss, Clay D. Brinker, Frank Anton Burg, Lawrence E. Creeden, Ivan L. Davis, Lydia DeCourcy, Geo. Wm. Fillauer, Eugene C. Fitzpatrick, Charles Fred. Harding, Louis Horwitz, Herman Aug. Kahl, Harry Ferd. Klein, Vernon Stanton Lucas, Raymond Anthony Martin, Edward D. Middlekamp, Warren Martin Miller, Joseph John Remmer, Horace Smith Rentschler, Albert Wm. Ross, Harry Walter Spears, Robert Chas. Tuerck, Homer Clifford Wallace, Lucile Bertrand Wells, George Winter, and George J. Wittenberg.

Pharmaceutical chemist on: Anna F. Hare, and Amos Wm. Todd.

Columbia University.

At the commencement services of Columbia University held June 7th the degree of pharmaceutical chemist was conferred on the following-named students:

Marion Astarita, F. J. Brannigan, H. L. Hermes, F. L. Hunt, J. J. Loughlin, Jr.; A. Machol, L. M. Monell, S. Morris, V. A. Robinson, T. Weicker, and S. Wilkinson.

And of doctor of pharmacy on R. F. Blum, Roddie Minor, and W. Regnault.

Ex-Professor Chandler received the degree of doctor of laws at the same commencement.

University of Illinois.

The University of Illinois School of Pharmacy closed its course for the degree of pharmaceutical chemist June 10th, and five students received the degree. They are as follows:

Samuel Charles Annenberg, Henry W. Colson, Clifford LeRoy Foote, Roy Harry Lower, and J. Bryce Carpenter.

Iowa University.

At the commencement exercises of the College of Pharmacy of the State University of Iowa, held June 14th, the following persons were given the degree of graduate in pharmacy:

Henry Earl Bowers, Frank Anton Challed, Anita Daniel, Blaise Leonel Duhe, B. A. Fisk, Hyram Francis Gowdy, Mansfield Browning Herrald, Homer D. Long, George Thomas Overstreet, George Lloyd Parsons, Ernest Simpson, Arthur Horatio Small, Bert Miller Smith, John

Aloysius Cahill, Frank Mathias Koch, Joseph Ralph Stack.

Harry Wallace Foster and Rudolph Andrew Kuever received the degree of pharmaceutical chemist.

The commencement address was delivered by the Hon. Peter Stenger Grosscup, of Chicago, on "The Larger Outlook."

The Alumni Association prize of free membership in the association to be given to the member of the graduating class attaining the highest general average in all branches of study was awarded to Homer D. Long, of Iowa City.

Membership in the A. Ph. A. offered by Dean Teeters to the member of the senior class who in competitive examination should be rated highest in recognition and description of organic drugs, was awarded to Miss Anita Daniel of Murray.

University of Maryland.

Twenty-one young men and a young woman were graduated at the commencement exercises of the University of Maryland held June 1st at the Lyric Theatre, Baltimore. Dr. H. W. Wiley addressed the audience on the value of civic virtue and of participation in public life. He put in a word for woman suffrage, this reference being in deference to several woman graduates. Bernard Carter, the provost of the university, presented the diplomas. The graduates were:

L. Dettelbach, A. Hergenroether, L. R. Laroque, H. C. Lewis, C. W. Oertel, T. E. Ragland, J. S. Sandler, P. P. Tower, T. H. Waltz, and J. C. Woodland, of Maryland.

N. S. Avinger, O. L. Johnson, J. E. Stokes, and W. J. Wanamaker, of South Carolina.

C. B. Boyd, of Pennsylvania.

P. F. Flynn, of Connecticut.

F. Garrison, of New York.

C. O. Miller, of Ohio.

E. Artigiani, and L. T. Lombard, of Italy.

The gold medal for general excellence went to Clifford O. Miller, who also got a special prize and a third medal for excellence in histology.

Certificates of honor in the order of merit were bestowed upon C. O. Miller, Thomas E. Ragland and H. Dietel, Jr. Sidney J. Brown, Henry F. Hein, Lee Hodges, J. Stanley Smith and Ethan O. Brierson received honorable mention.

Medico-Chirurgical College.

At the commencement exercises of the Medico-Chirurgical College of Philadelphia held June 3d, pharmaceutical degrees were granted as follows:

Graduate in pharmacy to: Howard E. Ashton, John L. Ballentine, Joseph H. Becker, Frank E. Boston, William A. Burt, Anthony Cavenas, Saxa G. Davies, William F. Delaney, Nelson M. Elsbey, Frank J. Ernst, Robert P. Fischelis, Malcolm M. Follmer, Thomas W. Hardy, Bruce M. Hicks, Ralph Hassenplug, John C. Householder, Harry V. Johnson, John F. Kratz, Gerald A. Lee, Eugene V. McCawley, Andrew L. Nealon, Lafayette P. Noaker, John M. O'Donnell, John F. Schreffler, Joseph R. Sterner, Cornelius A. Walsh, Arthur F. Weaver, and Engelbert L. Weiszgerber, of Pennsylvania; Samuel Bahin, Israel Paul, Isador P. Salinsky, Edward I. Seldes, William H. Sternthal, and Leon M. Wolchek, of Russia; Ralph M. Gray, Carl E. Stone, and Robert W. Wheeler, of Maine; Benjamin A. Kramer, of North Carolina; Baker J. Burnett, of New Jersey; Richard H. Knowles, of Ecuador; Cesar D. Andrade, of Roumania; Meyer B. Bloomfield; and Francesca Megaro, of Italy.

Pharmaceutical chemist to: David F. Fisher, George A. Fisher, James E. Brewer, Chester P. Guthrie, Wilson B. Hart, Max Heller, Ralph C. Holmes, Harry V. Johnston, John B. Mockatis, John P. Snyder, Guy O. Zehner, Carl E. Stone, Cesar D. A. Lopez, and George C. Kolb.

The honorary degree of doctor of pharmacy was conferred on Dr. Seneca Egbert, dean of the department of medicine; Dr. I. V. S. Stanislaus, dean of the department of pharmacy; Dr. John H. Small, John C. Scott, Robert S. Callen, Harold C. Parish, and Paul S. Pittenger.

Prizes were awarded as follows:

Faculty gold medal, for the highest general average in the senior class, to Robert P. Fischelis; honorable mention of E. Leonard Weiszgerber.

Faculty gold medal, for the highest general average in the junior class, to William W. Hollenbeck; honorable mention of Arthur F. Brown.

The Professor Stanislaus gold medal, for the highest general average in theory and practice of pharmacy at the

final examinations, to Robert P. Fischelis; honorable mention of Arthur F. Weaver.

The Professor George H. Meeker prize of nomination to membership and the first year's fee in the American Pharmaceutical Association, for the highest general average in chemistry in the senior class, to Robert P. Fischelis; honorable mention of Eugene V. McCawley, and Nelson M. Elsbey.

The Alumni Association gold medal, to the member of the senior class passing the best examination in practical pharmacy, to Frank J. Ernst and the second prize consisting of membership in the association, to Robert P. Fischelis.

Senior chemistry prize to, William Bregy Hart, who also won the Professor C. E. Vanderkleed prize of membership in the American Chemical Society; honorable mention of Carl E. Stone, and James E. Brawer.

Junior chemistry prize to, Edward Eisenstein; honorable mention of Carl E. Medde, and Roscoe E. Riegner.

University of Minnesota.

The eighteenth annual commencement of the College of Pharmacy of the University of Minnesota took place in the University Armory, Thursday morning, June 8th. The newly elected University president, Dr. Vincent, delivered the commencement address.

The degree of bachelor of pharmacy was conferred on the following-named students:

Edward M. Adams, Ben G. Anderson, Ben S. Ash, Alberta J. Austin, Roy J. Boardman, Samuel J. Broude, Oscar H. Erickson, Frank A. Gifford, Manley H. Haynes, Wilfred R. Laliberte, Edward M. Marsh, Richard B. Meland, Susan S. Millard, Rex C. Nelson, Alice P. Newton, Albert W. Peterson, W. Estelle Prevost, Ross J. Reynolds, Adolph F. Rood, Louis Spiegel, Frank A. Steiner, James L. Titus, and Frank J. Weber.

University of New Jersey.

At the third commencement of the University of New Jersey, June 8th, the degree of graduate in pharmacy was granted to Roman E. V. Angresius, Joseph Berdich, Grochino Stassi-Pelta, Ernest N. Caliva, Max Freid, Joseph Zito, and Louis Carollo.

The degree of doctor in pharmacy was given to Albert Edel, Leroy L. Patterson, and Joseph Koffler.

University of Pittsburg.

At the commencement exercises of the School of Pharmacy of the University of Pittsburg, degrees were conferred as follows:

Graduate in pharmacy on: Henry L. Alm, Ernest E. Alvino, Sister Clementine Becker, Walter S. Bixler, Charles H. Blazier, Joseph A. Boorman, Albert A. Brackmann, Harry L. Bronkhoff, Herbert J. Brown, Thomas E. Brown, Jr., William P. Caldwell, William D. Callahan, Charles G. W. Campbell, Archie D. Canon, Mathew S. Clark, Albert L. P. Cole, Roy W. Crawford, Timothy J. Crowley, Garrett G. Cruzan, James A. Davis, Paul J. Downey, Thomas F. Diefenderfer, Erven E. Dierken, Harry A. Eicher, Leroy D. Emery, George C. Faust, Ernest J. Ferkany, Louis G. Firman, Joseph E. Franklin, Jr., George A. Geyer, Harry A. Gibson, Harry Gilbert, Harry W. Hagmeier, David C. Henry, Gustave Hirsch, Otto J. Hoffman, Shiras K. Holmes, Clyde R. Jolliff, George H. Kabler, Elmer J. Kiefer, Albert L. Kossler, Wladyslaw Lawecki, Thomas W. Lawrence, Theodore H. Lippman, Abe Markowitz, James C. Martin, Ralph V. Miller, Calvin C. Mitchell, Leonard S. Morgan, Herbert P. Mosca, Jacob O. Myers, Richard E. McAbee, James C. McBride, Donald F. McCready, Robert McGary, Ray C. McGuire, William J. McLaughlin, Warren R. McWhinney, Leland S. North, Sister M. Carmel O'Brien, Jay D. Ohl, Leo P. Phillips, Albert A. Pierce, Leo E. Portman, Theodore W. Primas, Edward F. Rhodes, Lester G. Rigby, Louis W. Ritzi, Wilbert T. Shaeffer, Ira Shaffer, Charles Shrader, Jacob Sitnek, James D. Sullivan, Lewis C. Spalding, Harry F. Spohn, Carl M. Spragg, Russell St. Clair, Charles A. Steffey, Paul L. Thomas, Egbert H. Tinkelpaugh, Roy E. Tyler, Walter W. Welsh, Harry D. Withers, Harry C. Yockey, and Peter J. Zaremba.

Doctor in pharmacy on: Lorenzo Albino, Robert Archibald, Frank X. Aron, Joseph F. Brantlinger, Harry V. Day, Alphonzo J. Harris, Guy B. House, Robert K. Norman, and George A. Weger.

Certificates were given to the following special students: James C. McNulty, Andrew Smetana, John J. Eiben, Christian S. Blum.

Temple College.

At the commencement exercises of Temple College of Pharmacy held at Philadelphia, June 1st, degrees were conferred as follows:

Graduate of pharmacy on: Osher Briskin, Jacob Goldberg, Nathan Kaufman, Michael Jules Lovenstein, Rebecca Levy, William Neville, Mabel Nelson, Leon Ross, Samuel A. Silk, and Frederick A. Schuenemann, of Pennsylvania; Charles S. Gutzeit, Harry Lashinsky, Solomon Major, and Samuel Rosin, of Russia; Ruth Gardena, of South Carolina; Camille O. G. Mims, of Louisiana; Otto Strock, of Germany; Martial A. Petrus, of Haiti.

Pharmaceutical chemist on: Howell T. Healy, of Pennsylvania.

Doctor of pharmacy on: James Connor Atix, Joseph L. Capozio, and Martha Young, of Pennsylvania.

Certificates for completion of chemistry course were given to John Christian Graf, Henry Jacob Maier, John R. McConnell, Howard Reichard Myers, and Abraham M. Sigmond, of Pennsylvania; Charles Frank Class, of New Jersey.

The dean's gold medal for the highest general average in the senior year went to Charles S. Gutzeit; honorable mention was made of Harry Lashinsky and Martial A. Petrus.

The H. Evert Kendig gold medal for the best examination in the theory of pharmacy to Harry Lashinsky; honorable mention of Charles E. Gutzeit and Jacob Goldberg.

The Henry Fisher prize for the best examination in materia medica to Solomon Major; honorable mention of Charles E. Gutzeit and Dr. Samuel A. Silk.

Membership in the American Pharmaceutical Association for the best examination in pharmacognosy to C. E. Gutzeit; honorable mention of Harry Lashinsky.

Western Reserve University.

At the commencement of Western Reserve University (Cleveland), June 16th, the following named students of the school of pharmacy were graduated.

As graduates in pharmacy: Harry M. Alexander, George N. Case, Morris E. Curtis, Otto Ebnet, Robert Hendess, Ralph Herz, Joseph A. Kundtz, Vernon C. Roller and Charles Sykora.

As pharmaceutical chemists: Austin H. Craig, William W. Harrington, and Frederick B. Snyder.

A favorable report was made in June by the committee on public health and national quarantine of the United States senate on the Martin bill to "promote the efficiency of the public health and marine-hospital service." It is different from the Mann bill, which passed the house in the last congress, but probably not so materially different as to cause the house to reject the Martin bill if it shall be favorably reported by the committee on interstate and foreign commerce. The Martin bill is more extensive than the Mann measure in that it deals more generally with salaries of the various grades of officials in the public health and marine-hospital service.

Haney's drug store, at Denver, was practically ruined, June 4th, by an explosion of gasoline in a tank used in lighting the premises. Some comphorated oil took fire and the flames spread to the gasoline. No one was injured. The loss was estimated at \$2,000.

The Griswold Drug Company's store at Chicago was robbed by burglars June 13th, of \$600 worth of goods. Other goods had been packed up for removal; the burglars apparently had been frightened away before getting them out.

A carbonator exploded in the basement of Boerman's drug store, at Pittsburg, May 25th. The explosion occurred very early in the morning, no one being in the store at the time. The damage to the building was estimated at \$150.

There is a rumor that cork-oak growing will be tried in the Southwest. Some fifty years ago the federal government started an experimental planting of cork-oaks in Arizona but abandoned the plan because of the civil war.

The bill pending in the United States senate providing for a department of health was introduced in the house last month. It was considered doubtful whether any action could be had before December.

The customary headache powder caused another death last month. A Philadelphia woman was the victim this time.

Obituaries.

JULIAN W. BAIRD.

Dr. Julian William Baird, dean of the faculty of the Massachusetts College of Pharmacy since 1895, died at his home in Boston, June 25th, following an operation for biliary calculus. He was fifty-two years old. Dr. Baird joined the faculty of the Massachusetts college in 1886, as professor of chemistry. Prior to that time he had taught chemistry in Lehigh University, South Bethlehem, Pa., for three years, and had been assistant in chemistry at the University of Michigan during the session of 1882-3. It was in 1883 that he received his degrees of A. M., and Ph. C. from the Michigan institution, and in 1890 that Harvard conferred upon him his M. D. degree.

Dr. Baird joined the American Pharmaceutical Association in 1894, and was also a member of the American Chemical Society, the American Medical Association and a number of other scientific bodies.

WALLACE PROCTER.

Wallace Procter, a pharmacist and chemist widely known in professional circles, died at Philadelphia May 27th. He had been engaged in business for the last few years in Wheeling, W. Va.

Mr. Procter was the son of the late Prof. William Procter, for many years a member of the faculty of the Philadelphia College of Pharmacy.

CHARLES FLEISCHNER.

Charles Fleischer, of New Haven, Conn., died June 22d. He was born in Bavaria fifty-nine years ago. In 1901 he was elected president of the Connecticut Pharmaceutical Association and the same year was made a member of the executive committee of the National Association of Retail Druggists.

DANIEL J. PUFFER.

As briefly mentioned in the June issue of the CIRCULAR, Daniel J. Puffer died at his home at Medford, Mass., May 22d.

Mr. Puffer was born at Boston, December 9th, 1852. He engaged in the manufacture of soda water and bottling apparatus when eighteen years old, and was connected with the same business to the time of his death. When he entered the business the firm was conducted by A. D. Puffer, and after a few years a co-partnership was formed consisting of A. D. Puffer and his three sons, under the style of A. D. Puffer & Sons Manufacturing Company. This latter concern together with three of the other leading houses amalgamated some years later and formed the American Soda Fountain Co., and during the entire period Mr. Puffer took a leading part, being president and director of all the Puffer companies. After connection with the American Soda Fountain Co. for about ten years, the Puffers severed this connection and started the firm of the Puffer Manufacturing Company, Mr. Puffer being president. He continued to take an active part in the business, displaying the energy which had been a life-long characteristic.

Following are recently reported deaths of other persons in the pharmaceutical world:

EDWARD F. BANTZ, at Pittsburg, June 6th.

FRED B. BROWN, at Oconomowoc, Wis., June 13th.

THEODORE F. BROWN, at Washington, Ohio, May 25th, aged sixty-three years.

H. P. BUFFINGTON, at Defiance, Ohio, aged eighty-two years.

N. F. HAZEN, at Covena, Cal., June 1st, aged seventy years.

CLARENCE T. KIRBY, at Towanda, Pa., May 31st.

O. E. H. KLOPSCH, at Brooklyn, June 25th. He had been in business at Myrtle avenue and Cumberland street for twenty years.

L. E. MULFORD, at Chicago, May 21st, aged seventy-two years. In the earlier part of his life Mr. Mulford was in the drug business at Toledo; during the past thirty-five years he had been a commercial traveler.

G. F. PARSONS, at Troy, Ohio, aged sixty-three years.

LOUIS SCHREINER, at Callicoon, N. Y., June 8th. He was a member of Wenzel & Co., of this city.

WARREN B. SMITH, at Providence, R. I., June 2d, in his twenty-first year.

P., D. & Co. Excursion.

The twenty-first annual excursion of the employees of Parke, Davis & Co. occurred June 21st. For the pleasure and comfort of employees and their friends as guests, the firm chartered for the day two of the largest excursion steamers, "The Greyhound" and the new boat, "Put-in-Bay," on which some 5000 people were taken to Put-in-Bay. The occasion was primarily a basket picnic, the excursionists for the most part carrying boxes of luncheon, which was partaken of, as fancy dictated, either on the boats or after landing. Little parties came together on the decks and in the cabins or in the grove at the island. Dinner was also served on both boats and at Hotel Commodore, Put-in-Bay, for those who were not otherwise provided.

Dancing was participated in on the steamer "Put-in-Bay" and at the island, Finzel's orchestra supplying the music. A ball game was played in the afternoon between executives of the company and traveling representatives.

Temporary Modification of the Saccharin Order.

The federal authorities have temporarily suspended the order prohibiting the use of saccharin in food. Until January next its use may be continued providing the presence of saccharin is plainly declared on the label.

The reason given for this is that time be had for examining into the question and to review the opinion rendered by the referee board.

What is believed by some to be a record price for North Carolina real estate was paid by P. A. Thompson for a lot 24 by 100 feet at the corner of Liberty and Fourth streets, Winston-Salem, N. C., the other day. The price paid was \$40,000. Mr. Thompson owns the adjoining property on which his drug store is located, and it is his intention to combine the two sites and erect a modern building with a drug store on the corner.

The Druggists Circular

Entered at the New York Post Office as second-class matter.

ESTABLISHED 1857.

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William O. Allison, President and Treasurer.
D. G. Bogert, Secretary.

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Net Advertising Rates.

	3 months.	6 months.	12 months.
One Page.....	\$248	\$438	\$750
One-Half Page.....	142	238	438
One-Third Page.....	115	166	300
One-Quarter Page.....	86	125	225
One-Sixth Page.....	60	100	166
One-Eighth Page.....	45	70	125
One-Twelfth Page.....	34	56	100
One-Sixteenth Page.....	25	43	75
One-Twenty-fourth Page...	19	33	56
Card 2½x¾ inches.....	11	19	33

Special prices are charged for preferred positions.

Changes for standing advertisements should reach us before the TWELFTH of the month, as we commence printing on that date. New advertisements sent in before the 23rd of any month can be inserted in the following issue.

Classified Opportunities.

Advertisements are inserted under this heading without display except as to a portion of the first line; the charge is at the rate of 25 cents for six words, each figure, abbreviation or initial being considered one word. Terms: invariably cash with order.

NO ORDER GIVEN TO ANY REPRESENTATIVE OF THIS PAPER BECOMES BINDING UNTIL APPROVED BY ITS MANAGER.

QUESTIONABLE OR UNDESIRABLE ADVERTISEMENTS WILL NOT BE ACCEPTED.

THE DRUGGISTS CIRCULAR

A Practical Journal of Pharmacy and General Business Organ for Druggists

VOL. LIII. NUMBER 8.

NEW YORK, AUGUST, 1909.

WHOLE NUMBER, 632.

Duns and Collections.

Perhaps no one feature of the business gives more annoyance in a majority of stores than the matter of collecting—or failing to collect—small accounts. We feel quite sure that most druggists would be glad to pay a good price for and distribute as free souvenirs among many of their customers, any remedy that would be sure to make such customers live up to the thirty-day rule printed on the usual statement of account. But unfortunately for all kinds of business people, and especially small shop-keepers, no such remedy as the one mentioned is on the market, and nothing but such a wild flight of the imagination into the realm of folly as could occur only in the overheated season could make us conceive of such a thing. But the fact stares every store-keeper in the face every time he opens his books, that there is a big field for anything which would cause people to settle.

We say every store-keeper who looks into his books feels the want of something to make people “come across”—as some of our Southern friends might say. Perhaps this is an exaggeration, but we doubt it. If the store-keeper had no books to look into he might have no delinquent debtors, but where there are books there are almost sure to be on them names of people who can not or will not liquidate promptly or at all. We once knew a man who opened a store and said that he was going to demonstrate to the people the possibility of doing a strictly cash business. He said that he was not going to sell a thing on credit, not even to the president of the bank, and that if any of his clerks did he would take the amount of the sale out of his wages. It was not long before he was doing a big farm-supply trade and taking notes secured by crop liens and chattel mortgages. That was a long time ago, but our present recollection is that he failed. About the same time a druggist was forced out of business on account of his inability to collect a number of small bills due him. His successor determined to profit by his experience and to give no credit to anyone. In less than two years he too was out of business with hundreds of dollars on his books—where most of them still are. Among his creditors was a young lawyer, and to him were turned over the books, the druggist shrewdly arguing that he could save the lawyer's account by taking its equivalent in services. But a druggist is no match for a lawyer. The attorney collected some of the ac-

counts, and kept his commissions, but what he owed never grew less. These are slight digressions, but they serve to illustrate the point that where there is credit there are likely to be bad accounts.

Perhaps there are as many different reasons or excuses for failure to settle accounts as there are different kinds of men and women, or different kinds of minds. No one form of request will have the same effect on all debtors, any more than one kind of music, literature, work or sport appeals to all alike. Personal equation must be offset by personal equation. In this issue of the CIRCULAR are suggestions offered by two contributors on the subject of collections, as well as two notes from other papers. If these ideas help, or any one of them or combination of several of them materially aids in his daily or monthly work the wearied collector of small sums due on store accounts, then this number of the CIRCULAR will go down in history as the one which did as much to elate the partner who specializes in the accounting department as any other number has ever done in elevating the member of the firm who holds up the professional end of the establishment. We hope that such an achievement is before this number, as we can not at the moment think of any way in which we could render any more immediate and tangible aid to our readers than by showing them how to get what is due them for services rendered and goods delivered.

The Next N. A. R. D. Meeting.

That the druggists of the United States need a strong central organization to look out for their interests in a way that the American and State pharmaceutical associations can not, is a proposition too apparent to need arguments in its support. That the National Association of Retail Druggists has proved a stronger and more militant organization than any other of its kind that the druggists of the country have ever formed, is also an admitted fact. The famous “Indianapolis decision” of May ninth, 1907, deprived the national association of what seems to have been its chief rallying cry, the protection of prices on “patents,” but we said in commenting on that decision, and we repeat now, that so far from ending the life of the association, the opinion of the court that its price-protection plan was illegal merely cleared the way for it to expand and grow along healthy lines.

We are sorry that the druggists have not set to work more diligently during the fiscal year of the association just closing to accomplish some of the tasks that are before them. A very perceptible lukewarmness in some of their work, compared with the former fervor of their feelings toward features of it now involuntarily abandoned, is manifest to all who have given the matter any thought. The propaganda in the interest of official remedies, postal legislation, "shorter hours" and Sunday closing, patent law reform and many other things that have been touched upon by the National Association of Retail Druggists at one or more of its eleven annual meetings need attention now as much as they ever did.

Doubtless the Louisville meeting, to be held September sixth to tenth, will prove a crucial one in the history of the organization. We should like to see those members who have the best interest of pharmacy at heart present in sufficient number to insure an outcome that will prove pleasing to their kind.

Pacifiers As an Abomination.

Women with ugly mouths once gave us an excuse for writing about the evils of the germ-bearing, gum-distorting and generally iniquitous thing of bone and rubber used by poorly-informed mothers to "pacify" their babies. The publication of our sentiments raised a vigorous protest from a drug clerk who, after working sixteen hours every day, went home at midnight and accidentally waked his baby, and would have had to walk the yowling kid until nearly time to open the store again but for a "pacifier." Later, however, this same clerk wrote us that he was convinced that we were right and he was wrong. All of which and more may be seen by those who care to take the trouble to consult the volumes of the CIRCULAR for the past four or five years.

Doctors have long known of the permanent disadvantages of using the mouth distorter, and we have done what we could to call the attention of druggists to them. Even some of the general public have "caught on" and are beginning to blame the druggist for the extensive use of the little abomination. A correspondent of the *New York Times* signing herself (or himself) "Auntie Pacifier" recently had this to say:

Now that you have come to the question of teeth, particularly those of children, and express the belief that "parents and children may be educated in the care of the teeth," let the parents learn of the damage caused by the persistent, and, among poorer classes, the universal sucking of a rubber nipple sold as a "pacifier." This instrument causes thickening of the tongue and raising of the roof of the mouth, thereby distorting the nasal chambers and causing a protrusion of the upper front teeth, a protrusion which is only exceeded in extent by that caused by thumb sucking.

Only prosperous people are able to pay for the services of an expert orthodontist, as his work, involving as it does the element of much time, cannot be both cheap and good, but may be either separately. The poorer children are ignorant of the cause of their physical defects, their sickly bodies often becoming tubercular from dental deformities. The usual explanation is, "Oh, his father and grandfather had just the same shaped mouth," as if that

excused anything. Scarcely a druggist carries in his stock the teething ring formerly given to children. I recently searched the neighborhood of ten blocks on the upper west side for one of these, but found only a celluloid ring that was fitted with the modern villainous contrivance known as a "pacifier."

Every time the public is aroused against the iniquity of selling alcoholic beverages or morphine or cocaine preparations in the shape of "patent" medicines, or the promiscuous dealing out of caffeine-laden soda-fountain beverages to children, or acetanilide or phenacetin headache wafers to anyone who calls for them; or even of supplying the innocent-looking but really "villainous contrivance known as a 'pacifier,'" druggists are sure to come in for their share of the blame, and to lose "caste" with the more intelligent and thinking class of the public as a consequence. This is unjust to those druggists who do their duty in regard to these things, and we should like to see the coming of the time when such druggists shall be in so large a majority that the others will no longer be the ones from which any considerable portion of the public gets its ideas of the ethics of the drug business.

Examining Candidates.

Hiring a clerk is an interesting procedure for both the man who is doing the hiring and the man who is seeking a position. Many questions are asked by the employer as to the experience, habits and expectations of the applicant for the place and not a few for the purpose of ascertaining what he knows about pharmacy.

An experienced drug-store proprietor and sometime board member in a recent contribution to the CIRCULAR said that in examining a board candidate he treated him as a man who had applied for a position in his store, and from his answers he could tell whether he was a safe man to trust behind the prescription counter regardless of whether or not he was cut out for a professor in a college of pharmacy. We were reminded of this bit of common sense by looking over some of the examination papers used by board members during the past few months. If we wished to be critical we could pick out from these papers some of the questions which, presumably, the examiners would ask of candidates for positions in their respective stores. For example: "State briefly the chemical reaction which takes place in preparing liquor chlori compositus?" "Explain the process for the manufacture of sulphuric acid." "Name one drug from each of the following natural orders, linacoe, magnoliacoe, filices, gigartinactae, simambacicao" (the examiner probably meaning linaceae, magnoliaceae, gigartineae, and simarubaceae, the copyist doing him—and incidentally the candidate—a bad turn). "The monacetyl derivative of anilin is officially known as what?" "What three metals produce the greatest number of official preparations?" "Give habitat of gelsemium." "What is sublime sulphur?" "How many official pills contain sapo?" We say we might pick out many such questions as these if we were disposed to be critical, but we prefer to be just, and so

give the examiners credit for asking a large proportion of well considered questions.

But, in doing justice to the examiners we should not lose sight of the fact that something is due to the young men and young women whose future is largely in the hands of these examiners. Such questions as we have quoted, while they constitute a very small percentage of the papers from which they are taken, are surely not calculated to bring out the best there is in a candidate; indeed some of them might more reasonably be expected to make him so confused that he would experience difficulty in concentrating his mind on the really sensible and important parts of the examination.

The demand is for better clerks. Perhaps one good way to go about getting them is to have better examinations for them. There is improvement going on in this regard, but there is still abundant room for more, as any competent judge must agree after carefully examining the board questions which are printed from month to month in the columns of this journal.

SHORTER HOURS FOR DRUGGISTS is a subject upon which it is always safe to have something to say, and it is also a subject upon which much has been said during a somewhat protracted period of time. The story is told of a young doctor who went to work as soon as he emerged from college and cured a chronic old case which older physicians had been attending for years. A more experienced practitioner took the novitiate to one side and told him that he would ruin the business if that was the way he went about his work, as the cured man had been one of the principal sources of income for the doctors in the county for some dozen or so years. Perhaps this story is wrong, for on second thought we believe it was a young lawyer who caused consternation among his brethren by settling an old suit out of which they had been paying their rent and grocery bills for quite a while. Lawyer or doctor, the point is the same, and it is here brought out just to show how there seems to be no immediate danger of some bright young druggist or drug journal editor rising up and robbing us of this perennial subject of oral and written discussions. Long before the present generation of druggists and writers were out of school and before most of them were even born, the CIRCULAR was agitating the question of "early closing." In 1867, in reverting to the subject, it urged the American Pharmaceutical Association and other organized bodies of pharmacists to bring weighty forces to bear to accomplish the desired object. Possibly some good has been accomplished by the continued agitation of the matter for all these years, but we still hear of opening the store at seven and closing it at eleven (maybe) as of yore. A few years ago there was such a strong movement made in this city for "shorter hours" that a law was enacted limiting the time of labor of drug clerks in Greater New York to 136 hours in two weeks. This law is still on the statute books, but has not diminished the occasion for the agitation so one can notice it to any considerable extent, and therefore the subject is now just as much alive, even in this city, as it ever was. Maybe it will be found worthy of the serious attention of the Na-

tional Association of Retail Druggists, as we suggest elsewhere in this issue.

INTERNAL REVENUE TAX is something that druggists are not especially fond of paying. Just which tax they are especially fond of paying it is not our intention at this time to undertake to point out. We repeat, however, that it is not the one levied by the United States government on all dealers in alcohol or alcoholic liquors. Perhaps there are good reasons for this; perhaps the druggist thinks it is unjust for him to have to pay a special tax for the privilege of supplying a remedial agent on which his profits are in some cases less than the amount of the tax; or he may resent the imputation that he is a retail liquor dealer, when he is not. But no matter whether he objects to paying the tax for academic reasons or simply because he feels that he needs the money worse than Uncle Sam, if he is liable for the tax he had better so declare to the proper authorities and pay it, as failure to do so subjects him to penalties which may prove even more onerous than the tax itself. And this, of course, most druggists understand and do. We were under the impression that all of them did, or practically all, until testimony to the contrary came from the recent meeting of the Pennsylvania Pharmaceutical Association, where it was stated that many druggists were trying to evade the payment of the twenty-five dollars a year which the national government charges for license to deal in alcohol. The association seems to feel very strongly on the subject, and sent out a sort of "C. Q. D." to the pharmaceutical journals, asking them to warn those druggists who had been lax about this matter, and tell them that the revenue officers were camping on their trails and in case they found any who were selling alcohol without license might have them penalized at the rate of half the license fee for every year they had been without the permit. A druggist haled to court for failure to pay his "retail liquor dealers' license" tax would have a lot of explaining to do, not only to the judge but to some of his neighbors.

WHEN THE DAILY PAPERS take cognizance of the bad effects of dangerous drugs, we may expect the lay public to begin to accumulate a few ideas on the subject. The medical and pharmaceutical press may sound warning after warning as to the evils attending the indiscriminate taking of coal-tar headache powders and the public is not reached by the admonition except indirectly through physicians and pharmacists. Popular weekly and monthly periodicals can and do help wonderfully in the campaign of educating the people, but not many of them are very persistent in telling the people what they very much need to know about self-medication. The bulletin on coal-tar analgesics mentioned more extendedly among our book notices this month has aroused the editor of the *New York World*, who, in concluding a mention of it, says: "The coal-tar drugs have proved an invaluable aid to the medical profession. In the hands of the untrained they are dangerous remedies. The patient who makes himself his doctor in prescribing them has the worst of fools for his physician." If something like that appeared in every daily or weekly paper every day or week, we should not have to read so much about the increased death rate from heart disease. Several other newspapers which have come under our observation have given some prominence

to the findings set down in the bulletin in question. Pharmacists can not compel the lay press to warn the public not to be misled by the specious promises of the medicine venders, whose only object it is to get the money, but each one can do his own duty in the matter, and by so doing exert an influence which may be more powerful than he suspects.

THE AMERICAN PHARMACEUTICAL ASSOCIATION'S ESCUTCHEON has been slightly tarnished by the manner in which the association has abandoned one of its most valuable and loyal members after having led him into an uncomfortable position. The story has been told in the CIRCULAR and doubtless most of its readers who have any interest in the matter are more or less familiar with it; they know how the association induced George M. Beringer to read a paper on a subject which it assigned to him; they know how a suit at law grew out of the reading and publication of this paper; they know how the association might have been held equally liable with Mr. Beringer for any damages growing out of the reading by him and the publication by it of the paper; they know how Mr. Beringer defended and won the suit unaided by any moral or financial support from the association; and they know how, after the lapse of two or three years, the association has taken no official steps whatever to assure Mr. Beringer of its gratitude to him for having stood between it and a possible suit for damages, or to offer to compensate him in any degree for his loss of time and money and the great nervous strain under which he labored during the pendency of the case. We say that this action, or rather lack of action, on the part of the great American Pharmaceutical Association has slightly tarnished its escutcheon. This tarnish may be removed with but little effort if the task is undertaken without further delay, but it yearly grows darker and deeper, and if something is not done soon to wipe it off it will grow into an ineradicable blot. Can the association afford to allow this? We think not.

CLERKS ARE ADVISED by one of our correspondents this month, and also by a contributor to another paper whose "Don'ts" we have reprinted in this issue. We do not expect any clerk to heed all this advice, and we do not expect all clerks to heed any of it. Some, if they read it at all, will probably say "Rot!" and light a fresh cigarette—"on the house"—and proceed to confide to some of their cronies around the door how they are too smart to do more than they get paid for.

PUBLISHING A PHOTOGRAPH for advertising purposes without the permission of the subject has been made the basis of lawsuits in at least three States that we can think of at the present time. The latest of these suits is reported from Rhode Island, the others having been tried in New York and Georgia. In this State a majority of the highest court decided that the subject could not prevent the use of her portrait as an advertisement at common law, so the legislature at once made a statute covering the case. In Georgia the supreme court unanimously decided that the person whose right of privacy had been violated as mentioned is entitled to a verdict for damages, whether special damage is proven or not. Now the newspapers tell us that the supreme court of the littlest State has decided that a person at common law has no such right of privacy as indicated. Here

seems to be a case of two courts against one; and a really definite and final adjudication of the point at issue would serve to clear up a situation concerning the merits of which we are at present left in considerable doubt.

THINGS OF INTEREST IN THE CIRCULAR have been found and commented upon by a number of our friends in the South and West who responded to our invitation (printed in the CIRCULAR for June, page 276) to write us what they had seen in this publication during the past year or two that had proved especially valuable to them. We regret that the letters of some of them who live at a great distance did not reach us in time to permit us to quote some of their words of hearty appreciation, with those of others, in last month's number. We are a little backward about devoting space to this kind of material, and feel that having overcome our modesty once and used two or three pages in printing the flattering things that some of our readers say about us, we should hardly be justified in dwelling at length on the subject again so soon. However, we are none the less appreciative of the kind words on that account, and assure all our friends that their letters of approbation and commendation come as a sweet and precious ointment to us in the rounds of our daily work.

IF THE DRUGGIST ONLY KNEW which features of his business attract customers and which repel them; if he could only put his finger on any one line and say for a certainty that the good it does him is not in proportion to the time, space and effort it costs; if he were able to ascertain positively which of his clerks were giving him the best returns for the money they cost him; if he could tell whether or not it paid him to sell soda water, to sell cigars, or to sell stamps; if he could foresee whether moving to a more expensive store would result in an increase in sales more than sufficient to pay the increased rent; if he could do all these things, how much easier it would be for him to get along! Some men's judgment seems to be right on all business matters and these succeed. The business judgment of others seems to lead them to do the wrong thing as often as not, and these usually fail. Success is a matter of doing the proper thing at the proper time, and blessed is the man who can do this three times out of five.

THE AMERICAN PHARMACEUTICAL ASSOCIATION holds its convention a month earlier than usual this year. The place is Los Angeles and the time is from August sixteenth to August twentieth inclusive. Special trains are to run for the accommodation of members, the schedules of which have been printed in the CIRCULAR. The round trip fare from New York is a little over one hundred dollars, exclusive of the Pullman fare of some twenty-odd dollars.

ONE OF OUR BOARDS OF PHARMACY in examining candidates concerning doses, asks that the dose be given as set down in such and such an unofficial book. Suppose the candidate has never studied that book, then what?

URINOMETER SET FREE is a headline in one of the drug journals. What was the charge?

Can a man with high ideals succeed? Yes, he can, but he must have something more than his high ideals—an ability to work, for instance.

Collections of the Druggist.

BY THE BUSINESS PARTNER.

Bad debts had been piling up for five years. There were some that could not be collected under any circumstances. All kinds of inducements had been made. Threats had been filed. Collection agencies had given them up.

One day there appeared at the drug store a young man who offered to undertake to collect all the bad debts of the house. He had some original ideas on the subject. To him was given a number of bills to run through, and copies of the correspondence in connection therewith were laid before him.

The young man contracted to collect all or part of the bad accounts on a certain percentage. As the bad accounts had, in most cases, been dropped as worthless, whatever could be obtained on them would be just so much gain to the store. Therefore the young man, whom we may call Rouser, was engaged, and we gave him full headway with the half barrel of old bills which had been accumulating for a number of seasons. The clerk of the establishment was set to work fishing out old and forgotten unpaid accounts. There were bills which were dated five years back. There were some which had been outlawed. There were bills which had been returned on account of the death of the man who contracted them. There were bills there on which a small amount had been paid and on which the rest had been considered as lost to the house. There were bills of the poor widow and bills of the rich bachelor. There were bills of cranks and bills of men of talent. There were bills of policemen and bills of ministers.

Evidently there was work ahead for Rouser. But Rouser had a system, and his work was blocked out according to that system. Its success meant bread and butter to him. Rouser simply got busy in a corner of the store. He had a discarded desk all by himself. He was allowed to use pen, ink and postage stamps, but he was not to receive a cent for his time. At the beginning he said that he expected no returns for thirty days, after which he expected money to come in. He expected more in sixty days and another influx in ninety days, at the end of which period he would quit. Rouser expected to reap a harvest of coin. He proceeded slowly, carefully and mechanically. He devoted six solid days to classifying the accounts, making stacks of the bills, and carefully noting their amounts, the individuals or firms against whom they had been drawn. He set to work to find out why such and such a bill had not been paid.

At the end of the six days Rouser had his pile of accounts in order for actual business. He had attached to the margin of each bill a slip of paper on which to enter a description of the debtor and all circumstances appertaining to previous attempts to collect it, the stated reasons for non-payment, etc. Then Rouser had some circulars printed. It was the same old scheme of dunning by mail, but Rouser wanted to get in touch with each and every one of the persons. So the regulation dunning imprints were made, with the usual covert threat of turning the account over to the collection agencies, etc. Rouser sent out the accounts in sealed envelopes bearing two-cent stamps. During the next twenty days he received answers from possibly one-fifth of those whom he had dunned. Some returned the bills without comment. Others made some remarks about not being

able to pay. Some denied the accounts entirely. Others were sarcastic. Some had gone out of business. Others had died. About five per cent. of those heard from actually paid the bills. One man wrote that he had forgotten the matter and enclosed his check. Another who had paid part down settled for the balance. At the end of the thirty days, not enough money had come in to pay the cost of printing, postage and incidentals, to say nothing of the pay for the thirty days' time of Rouser.

But Rouser continued to smile. True he was losing time and money, but he had a system. He devoted the next thirty days to writing personal letters, mostly in his own hand-writing, to the delinquents. He used a typewriter part of the time, and dictated some of the letters, all but his signature. Rouser had been "looking up" the debtors. He studied the men and women from their correspondence in some cases. In other cases he got information from local collection agencies. He even wrote to the postmasters to get tabs on certain people. Firms that had failed and begun business again he traced through the commercial directories. He kept plugging at it.

In about fifteen days the replies commenced to arrive in response to the individual communications. Rouser's smile now began to widen. The returns were encouraging. Some of the people wrote and stated that they were pleased to get a personal letter concerning the account which they had so long before forgotten. They said they would settle at once, and asked pardon for the delay. Rouser had touched a tender chord in many of the delinquents and checks, money orders and cash were coming his way, although hardly in a paying amount, as time was passing and the expense of correspondence was heavy. However, Rouser never once showed signs of deserting his system. The second period of thirty days terminated with about twenty per cent. more of the delinquents paid up, and a goodly number with letters of promise to pay on next pay-day, or at the end of the month, or something like that.

Then Rouser began to put in some telling licks. His scheme had not paid salary and expenses. He started out one morning at the beginning of the third thirty-day period to make personal calls upon all who had not settled. He was met with a cold look and a stony stare in many instances. In other cases the bill was paid as an every-day occurrence as soon as he presented it, and no reference whatever was made to the lapse of years since it had been made. Rouser found some of the debtors had left that section of country. He went from place to place and visited and entertained. He attended the entertainments of certain persons in order to get in touch with his people. He went hunting with one man who owed nearly fifty dollars and the next day the account was paid. One man offered him a lot of land in settlement of an account, and another actually expressed a willingness to part with a casket on the same terms.

And thus Rouser worked. The third period of the ninety days expired and he cast up his accounts. He gave the members of the firm a pleasing shock when he turned in to them a little heap of checks and a drawer laden with cash. Rouser had gathered in about sixty per cent. of the abandoned accounts. After paying all expenses of the collections for three months, his commission was about \$600. The firm presented to him a good bunch of the non-collectable bills which were left over, and told him he could have

what he could get out of them. But when Rouser finishes with an account it is not worth much, so he asked if he could have blank paper instead.

Duns.

BY BERT. KAHNWEILER.

In the mass of detail connected with any successful business the problem of collections is one of the most intricate to solve that I know of. Not only does this problem call for a great deal of head work but it also demands an exceptionally good knowledge of that baffling subject—human nature.

In the drug business especially where one's customers are sick, and therefore irritable and easily offended, the collection of money is a very delicate work. There is no fixed rule for getting what is due on account; if there were, the matter would be a simple one. Circumstances alter cases. When bills have to be met and the money is not on hand with which to meet them, then the merchant just has to get down and plough rough land, even if he finds it unpleasant work and he runs the risk of driving off good customers.

Of course a good many accounts may be partly straightened out by personal calls and requests. This practice should always be followed if practicable. There is no better way of collecting than by the free use of the personal element. I have known a merchant to send out his bookkeeper or his clerk to raise money and when he returned empty handed, the merchant himself would go to the same people the next day or so and get just what he was after. Seemingly people are more impressed when "the boss" calls.

Women as a rule are very hard to collect from, as few of them are trained in business or financial matters. They would like to buy or pay as they choose, and sometimes when asked to pay they grow indignant and take their trade elsewhere. Perhaps it is just as well that some of them do go elsewhere and the loss of their accounts may be charged on the hard worked "profit and loss" page.

On the other hand, a little tact or a good personal appeal letter may work wonders. I give below a form of letter that we have used to good effect. It may help some readers to get many a dollar that has been given up as being as good as lost.

Dear Mrs. Doe:

You no doubt realize that we have been very indulgent in the matter of your account with us. We now have some heavy payments to make and we cannot do this without the assistance of our friends. We must therefore beg of you to let us have as much as you can possibly spare on account.

If you find that you cannot pay cash we will try to arrange to use your note.

If we were not in urgent need of money we would not make this appeal.

Thanking you in advance for your attention, I remain,

Yours very truly,

Letters on the order of the above will often bring refractory folks around to be the paying kind.

When people learn that the druggist is keeping a close watch on his books they will pay more promptly and will have more respect for him and his business methods. It is not meant by this that accounts of those who are poor or in needy circumstances and have much sickness to combat, should be unduly

harassed. They have troubles enough already, and if they have the stamp of honesty the druggist can afford to help them out in a way that will bring far greater returns than he may imagine.

In my experience I have never come across a better letter asking for a payment than the following. It is certainly worded just right and has the right swing to it. Perhaps it will be of use to some of the CIRCULAR's readers. It isn't exactly necessary to add that the man got a payment.

Dear Sir:

We are endeavoring to collect accounts due us in order to replenish our bank account. We make it a special point to pay every bill we owe every month, and in order to do this have to depend solely on our patrons to whom we have been pleased to extend a line of credit.

We assure you that it has been a pleasure to execute your order to the best of our ability, and in return for this we are asking for your kind consideration and a remittance of the amount you owe us, as per bill sent you the first of this month.

Please do not lay this aside and put the matter off but give it the prompt attention we gave your order.

Yours very truly,

Another good method is to send the bill with "For comparison only" written on it. This helps a good deal. A few words written on the bill as to needed funds also goes a long way toward securing prompt payment. As stated, it is a very difficult proceeding, this collection of money. As a *last resort* a good collection agency may be called in but it "kills" the customer—and he will tell his friends, besides. As his was a hard account it is probably just as well that he tell his friends.

I hope I have given a few hints as to result-getting on a daily question that gives business men bad dreams and headaches.

Credit and Collections.*

BY BERTON ELLIOT.

I would give special attention to credit and collections. There is no other phase of merchandising which must be so delicately handled—none which requires such great diplomacy and keen judgment.

In the first place, I would not take chances in extending credit to anyone who was known to be somewhat doubtful pay, with the fond hope that I, by some freak of fortune, would be quite sure to secure my money, even if others had sometimes failed to do so. In order to swell sales there is a great temptation to take more or less doubtful risks—but I would hold to a hard and a fast rule to pass them all up. I would let my competitor have this business.

While you can protect yourself entirely against the professional deadbeat and worthless character, at the same time credit is largely a matter of faith and confidence, from start to finish. You cannot be absolutely sure of any particular account until you actually have the money in your pocket.

So long as there is an element of chance in every credit transaction, it is hard not to show by your face or manner some feeling of doubt and reluctance, when one is applying to you for credit. I would try not to do it, however. I would make up my mind quickly as to whether or not I should allow credit. If I decided to allow it, I would act as though it was one of the great-

*Portion of an article from the *National Druggist*.

est pleasures of my life to extend credit in this particular case. I would not hem and haw, and look worried and perplexed, and finally wind up by granting it—if you do a thing at all to accommodate your customers you might as well get full credit for it, and increase their friendship and loyalty to your store through your spirit of willingness and evident desire to accommodate them whenever you have the opportunity. If I formed the conclusion that it would not be good business to allow credit, I would break the news as diplomatically as I could, and try to retain the customer's good will and cash trade if possible. If I did not feel justified in deciding the matter definitely without making inquiries, looking up the party, etc., I would try not to be two or three days doing it.

In the extension of credit a man's habits are one of the best indexes to go by. As Benjamin Franklin aptly expressed it:

The most trifling actions that affect a man's credit are to be regarded. The sound of your hammer at five in the morning and nine at night, heard by a creditor, makes him easy six months longer, but if he sees you at a billiard table, or hears your voice at a tavern, when you should be at work, he sends for his money the next day.

An industrious man of good habits very seldom contributes to the debit side of your profit and loss account.

As stated above, you cannot be absolutely sure of any particular account until it is settled. The man who is worth a million to-day may be ruined to-morrow. For this reason it behooves every merchant to make collection of every account just as promptly as possible, and not be negligent and over-indulgent with people of even the best standing in the community.

There are three ways of getting money from debtors. Some merchants are always mild, merely asking politely for money at regular intervals. Others resort at once to brutally insistent demands, threatening and attempting to frighten the debtor into paying. Still others are sympathetic in their attitude, with the idea of wheedling the money out of them. I would use all three methods. All three are good, and each has its special value. The mistake that many good merchants make is to use one method exclusively.

I would divide my charge accounts into three classes: (1) Good customers who are merely constitutionally slow in paying bills. (2) Unfortunate customers with little money, who pay first those they like the best, or those who wheedle them most successfully in a sympathetic way. (3) Those who are constitutionally mean and appreciate nothing but a club. I would get after each debtor, according to his classification.

In dealing with class 1, it is comparatively an easy matter to handle collections successfully. There is generally very little danger about the account being good, and it is simply a matter of keeping after them courteously and persistently.

Class 2 is generally the largest class. The great majority of people have very limited incomes, and find it a constant struggle to keep ahead of the world. They get in the habit of steering off everything they can. What little money they get they use to pay those whom they like best or who press them most successfully. What such people want is sympathy and encouragement to do their best to remove the burden of debt. They do not expect sympathy from such a source, and when it comes they are spontaneously grateful, and show their gratitude by special effort

to pay this particular debt. It is also well, in dealing with this class of debtors, to find out when payday is or just when money will come in, and be "Johnny-on-the-spot" at that time.

Class 3 requires drastic measures. There are some people so thick skinned that if you want them to do anything you must drive them by whacking them over the head with a club, figuratively speaking. For people of this kind I would adopt a "brutal" attitude intended to terrify and badger them into paying. In using measures of this kind it is well to leave yourself a loophole to crawl out if your man thinks himself badly used. You should try not to get into a position where any apologies can ever be expected. Do not call a man a thief and a deadbeat in so many words. Say, rather, that "people are apt to regard him as a thief or a deadbeat if he has to be sued to make him pay his honest debts."

If a man shows an honest inclination to pay, I would avoid "brutal" measures. They should be used only for the really dishonest or very thick-skinned man. One thing to be observed in all collections is never to make any threats and then fail to "make good." You will soon get a reputation around town and people will not pay any attention to your demands. If you tell a man that you are going to sue him on a certain date unless he makes satisfactory arrangements with you, make your word good and sue him.

Bringing in the Slow Accounts.

In a short article under the above heading in *Merck's Report*, Joseph F. Hosteley submits the following letter as a sample of a kind that might be found advantageous at times:

Dear Sir:

Won't you purchase something of us that will bring your account of \$7.63 up to an even \$8. It is a peculiar thing, but we find that many people would rather cancel an indebtedness for an even amount than one of uneven figures.

If you will favor us in this regard we will appreciate the courtesy. Probably you are glad we make the suggestion.

With kind regards, we are [etc.],

Perspiration Stain Remover.

Ammonium oleate.....	2 ounces.
Ammonia water.....	2 ounces.
Ether	1 ounce.
Benzin	5 ounces.
Chloroform	1 ounce.

Mix the first two ingredients, and shake them well together. Add the benzin, with more shaking, and then the chloroform, continuing the agitation. Let the mixture stand for a while and then shake it at intervals until a smooth, creamy liquid results.

It should be remembered that the vapors of both the ether and the benzin are very inflammable.

Hunn's Liniment.

An Australian correspondent of the *Chemist and Druggist* gives the following formula for Hunn's liniment:

Oil of elder.....	2 ounces.
Oil of thyme.....	1 ounce.
Camphor	1 ounce.
Spirit of camphor.....	2 ounces.
Oil of turpentine.....	1½ ounces.
Sweet oil.....	1½ ounces.

What Can We Do to Elevate the Profession of Pharmacy?*

By A. A. COLEMAN.

The fact that this subject was first on the list of those suggested by the committee on scientific papers would indicate that this is a subject of vital importance to us. I do not believe, however, that the committee or any thinking pharmacist believes that we are going to the bad. To the careful observer it is apparent that we are steadily advancing and getting on a higher plane of business and professional ethics.

I doubt if there has ever been an age of more rapid moral advancement than the last fifty years. The last ten years, I believe, have evolved more honesty and square dealing in business than any other century.

Progress growth and elevation are all synonymous. Pharmacy is advancing. How we can help to elevate and further the good name of the profession and the pharmacist is what we would briefly consider now. We do not want to fall behind in the general uplifting of business ideals around us.

All advancement must primarily come from individual initiative. There are, however, some things that as associations we can do to help this advancement.

As an association I think that one opportunity offered for elevation, lies in our seeing that we get proper legislation. We speak of law and medicine as two learned professions, and no doubt as professions they stand high. Look how they control legislation. The lawyers are in power and have what they want in the way of legislation, but the doctors usually get only what they go after. We do not want any oppressive laws passed, nor do we want any that favor us as a class or profession. What we do need, however, is protection. You can never legislate a man into being honest, and by legislation we can never make character for pharmacists. We can pass such laws, however, that if a rascal attempts to practice pharmacy we can put him out.

As a striking illustration of effects of good legislation we might point to the pure food and drugs law. I am proud that pharmaceutical literature and pharmacists did something to shape this law. This law has banished from the market a number of preparations supposedly of pharmaceutical origin. It has closed some factories and rendered less attractive pharmacy as a field of operation for the misbrander and counterfeiter. Every good law like this elevates pharmacy.

Any profession or society is judged by the average of the individuals composing it. Every undesirable that we legislate out of our ranks raises the average of what is left. We might think of or consider who the undesirables are. We do not want incompetents, we do not want any liquor sellers, or any that make a specialty of "booze" substitutes, we do not want any dope venders, we do not want the substituter or the dishonest in any guise. Let us as an association encourage the enactment and enforcement of such laws as will abolish all such evils.

Another thing that I think as an association we should foster and encourage is the scientific develop-

ment of the profession. As conditions are now with the pharmacist there is usually a period of study and preparation for college and board examinations. After he is licensed the pharmacist usually settles down to routine work or is so taken up with the business side of pharmacy that he neglects his scientific studies.

True development requires that a man acquire the study habit and keep up investigations all through life. The joy of learning to do something better than it was done before or of making a new discovery is doubled when we tell of it. In our associations we should offer greater incentives for members to conduct scientific investigations and tell of them. This will elevate pharmacy.

No business or profession has a moral right to exist that does not perform a public service. In our association meetings I think our discussions should take in those things that make us better fitted to practice our profession more than those pertaining to the business side. If we pay too much attention to increasing our profits or trying to squeeze all we can out of our business we will not gain very much in public esteem. While on the other hand if we stress the scientific side we set ourselves apart from other mercantile pursuits, as not only business but also professional men, and our professional standing is enhanced. There is not so much after all in this matter of getting a larger profit. It is just doing things a little better and having the courage to charge a fair price for it.

Let us strive for more education, more character, better work, more leisure and recreation, more friends and broader sympathies. Acquirement of these will give us that spirit of equanimity that commands respect.

Next to what we can do in our organizations is what we can do in our stores, to elevate pharmacy.

I sometimes see a lamentation on the drift of our modern pharmacies toward commercialism and department stores where the prescription department is crowded back in one corner almost or entirely out of sight. As I see it this is but a process of evolution, and survival of the fittest. The busy drug store on the corner with handsome and artistic fixtures and side lines galore, where dirt is absent and clerks and proprietor look prosperous and dress well is a decided improvement on what some would have drug stores to be or what they were fifty years ago. I believe that good clothes, artistic fixtures, and cleanliness are doing wonders to elevate pharmacy.

If we compare the little old fashioned drug store on a side street, to a back alley pawn shop, and our modern drug store to an up-to-date bank we get the comparative impression each creates in the mind of the public. Let us fix up, keep our stores clean, and dress well. All these are for the elevation of pharmacy.

After all, however, all structures must have a foundation. The character of the individual pharmacist is the foundation on which our profession rests. Every single act, every effort for good or bad that we put forth, in some way influences our professional standing. For, as already said, the profession will be judged by the average of individuals composing it. Let us not be satisfied with doing nothing to pull the average down; let us do something to raise it.

It has been aptly said that character is what we are, reputation is what people think we are. We must

*Read at the 1909 meeting of the South Carolina Pharmaceutical Association and contributed by the author. This paper received the prize of \$10 for the best paper read at the meeting.—Editor THE DRUGGISTS CIRCULAR.

look to both. In building our reputation we should remember that we leave some impression on every one that we come in contact with—our customers, our physicians, our competitors, our creditors, the manufacturers and our friends. All these are daily passing a verdict on us, and we can do something to influence the verdict of each for good.

By square and fair dealing we can gain the confidence and good will of our customers.

Unswerving honesty and skill in compounding will gain the respect of our physicians. If a physician shows partiality to any remedy there should be no "just as good" in putting up his prescriptions. Give him exactly what he specifies. It may do good in ways you do not know of. It will at least gain his friendship.

We can gain respect of competitors by fair and frank competition. Never give one an opportunity to suspect you of unfair methods.

We gain a double reward or increased respect and best prices when we meet our obligations to our creditors promptly.

We never lose the respect of a manufacturer when we refuse to stock something that he is manufacturing as a substitute for a rival's specialty. We certainly are doing nothing but the fair thing when we supply a demand created by the manufacturer provided he has his goods priced at a living margin. Let us be fair to the manufacturer who treats us right.

There is not a druggist in the land whose sphere of influence does not include from two to ten thousand or more people. There are county, State and national government officials and politicians among the acquaintances of every druggist. Each of these acquaintances judges the profession of pharmacy by his home druggist. We never know when we will need favors or the influence of friends or politicians for measures to elevate pharmacy. Let us ever merit confidence of all and when we want favors we are likely to get them.

* If each individual pharmacist is loyal to pharmacy and its organizations, and ever strives to broaden his sphere of influence by interest in public affairs, and is zealous in building character for himself, I think elevation is sure, and the future of pharmacy is secure.

Eucalyptus in Leprosy.

Hollman, of the leper settlement at Molokai, Hawaii (*N. Y. Med. Journ.*) reports good results during the past two years with eucalyptus internally and externally (in the form of medicated baths) in leprosy. This treatment has been followed by marked lessening of leprosy neuritic pains and of numbness and coldness in the extremities; it has cured leprosy itch and decreased the frequency of "leprosy fever" which commonly accompanies an exacerbation or a fresh invasion. The author believes that incipient leprosy can be cured by this means.

Blindness from an Arsenic Preparation.

Rüte (*Münch. Med. Woch.* through *N. Y. Med. Journ.*) reports the case of a man, seventy-three years of age, who was given injections of arsazetin to treat an extensive psoriasis. Atrophy of the optic nerve was induced, similar to that seen in cases of atoxyl poisoning.

Don'ts for the Employee.*

By GEORGE W. HASTINGS.

- Don't hustle.
- Don't arrive on time.
- Don't watch your work—look at the clock.
- Don't say nice things of your employer.
- Don't think—you may better your condition.
- Don't worry—the boss does that.
- Don't get things accurate—you will be discovered.
- Don't work too hard—you may get tired.
- Don't improve your time out of working hours—you may get a raise.
- Don't be observing—you may get an insight as to how things are done.
- Don't study the whys and wherefores—you may become a master.
- Don't take an interest in your work—you may learn to like it.
- Don't try to be original—it may get you a better position.
- Don't save money—you may want to go into business some time.
- Don't retire early at night—you might be able to do a good day's work next day.
- Don't be neat and accurate about your work—you will be thought finicky.
- Don't help a fellow workman—he might return the favor some day.
- Don't read the trade journals—you may find out something you didn't know.
- Don't wait for quitting time—you might work a minute over.
- Don't let the boss know just what you can do—it may surprise him.
- Don't mind what the foreman says—he is only a figurehead.
- Don't refuse "booze"—you will be laughed at, and besides you might get a regular position.
- Don't do anything until you are told—you may get your work cleaned up and be put on something else.
- Don't be an expert in any one thing—you get enough money anyway.
- Don't do anything well—do a little of everything in a way you'll always get the work, not the money.
- Don't pay any attention to what you are doing—errors will be caught in the proof.
- And don't try to improve on the time-worn methods—the boss might think you are interested.

A Swedish Radium Society.

It is reported that an association has been formed in Sweden for the purpose of studying radium and exploiting the radium-bearing ores of that country. "Kolm," a material found in the alum-slate quarries in the province of Westgothland, is said to contain radium, and the association, we are told, has obtained control of this district, as also of a new patented process for obtaining uranium and radium from kolm and other ores. The new association is said to be quite large and to include Svante Arrhenius, as one of its leading spirits. Other countries are also investigating their radium-bearing ores, Portugal having found some very encouraging deposits, and similar news comes from Mexico.

*From the *American Printer*.

Troches in the Pharmacopœia.

George M. Beringer, Jr., and H. D. Kresge in a paper read at the recent meeting of the New Jersey Pharmaceutical Association discuss the troches of the Pharmacopœia and the National Formulary. They regard the troche as the "most elegant of all elegant pharmaceuticals," yet the "most neglected" officially. They admit the advisability of most of the many dismissals of these preparations made at the last revisions of the Pharmacopœia, but regard it unfortunate that formulas were not introduced for others, standards for which they think were needed. Suggestions are offered for these and for improvement of the formulas of some of those which are now official. This seems to us a move in the wrong direction. Troches are apt to be regarded by the laity as a sort of "candy," and to be taken as freely as one may happen to choose. In some cases this may be of but little moment; in others a great deal. We recall a case, for instance, in which alarming symptoms followed the careless use of a cough lozenge containing morphine. The comparatively mild troche is a bad example, leading to the exhibition of dangerous drugs in the same form. It would be better to withdraw official encouragement from all such preparations. That physicians sometimes prescribe troches exploited by various manufacturers is not a sound reason for making them official.

Criticism of Some National Formulary Nomenclature.

At a meeting of the Washington Branch of the American Pharmaceutical Association, L. F. Kebler, of the United States department of agriculture, offered objections to the naming of certain National Formulary preparations (*Journ. Am. Med. Asso.*) He undertook the task, he said, with the utmost reluctance and diffidence, having a keen perception of the sterling integrity of the members of the Formulary committee who had a much larger experience in some lines, but he felt, however, that it was the duty of every member to point out shortcomings.

Soon after the enactment of the federal pure food and drugs act a manufacturer asked whether the use of the name "mandragorin" was permissible under the act. He was advised that if the preparation was mandragorin, in fact, prepared from mandragora root, such name would be considered proper; otherwise, its use would be misleading and therefore forbidden. This manufacturer then stated that the product to which he was applying the name "mandragorin" was a mixture, containing, among other ingredients, the alkaloids present in mandragora root, but that the preparation was not made directly from this root; and he was advised that the use of the name "mandragorin" for such a mixture was improper. The question raised in connection with this product was the authoritative nature of the National Formulary and whether the principles embodied in its nomenclature would be restricted to N. F. preparations, or if they would be applicable to other products. Attention was called to the fact that "elixir of cinchona," synonym "elixir calisaya" was prepared by dissolving salts of the three principal alkaloids of cinchona bark in aromatic elixir and coloring the mixture to imitate an elixir prepared from cinchona bark proper.

The name "mandragorin," says the author, is no longer applied to the mixture in question; "but there is no gainsaying the fact, that the manufacturer here has a good basis for an argument. A moment's reflection will convince even the skeptic that the principle in question would open the field for innumerable improper, if not absolutely deceptive and misleading practices. For example, according to this principle it would be perfectly proper to prepare 'tincture of nux vomica' by dissolving a suitable quantity of strychnine sulphate in an alcoholic solution of proper strength and coloring the same with burnt sugar. Again, it would be just as logical to dissolve a certain amount of vanillin in a suitable menstruum, to color the mixture with caramel and call the product 'vanilla extract.' Again, a tablet containing any salt of the alkaloid berberine could justly be named hydrastis tablet. From this, it is only a step to the 'formerly' so-called 'bitterless quinine' preparations which did not contain any quinine at all, but cinchonine or possibly some other cinchona bark alkaloid. The above products are plain imitations, the sale of which, in the case of drugs, is declared illegal by the federal and many state laws. No hesitation would be entertained in bringing a prosecution against a dealer in such improperly named commodities. In fact, so-called vanilla extracts, consisting of vanillin, with or without coumarin, dissolved in a suitable menstruum and colored in imitation of genuine products, have been adjudged adulterated and misbranded by the courts in that such articles were not real vanilla extracts, but imitations designed to deceive the public." It has long been a practice, continued the author, to name medicinal preparations after a valuable constituent, even if that formed a very small proportion of the whole, and in view of recent legislation it soon began to be realized that such names were improper. The use of the word "compound" in this way is discussed, and reference made to instances in the National Formulary in which the name-giving constituent is present in only a very small quantity such as the "compound syrup of Irish moss," the "compound elixir of celery," "compound pills of colocynth," etc.

The author reported a personal interview which recently took place in connection with a headache remedy containing the word "celery" in its title. The manufacturer recognized the shortcomings of the original name and believed that the addition of the word "compound" would rectify the difficulty. He well realized that the celery present in the product did not constitute any material portion of the activity of the drug, but that its potent agents at different times were acetanilide or acetphenetidin and caffeine and other ingredients.

To meet the embarrassments which such situations might induce, a food inspection decision No. 63 was given out prohibiting the use of the name of any drug which was not included unless the complete quantitative formula was given on the principal label. This proviso, however, can not be construed to mean that when the quantitative working formula is given, any deceptive and misleading name may be used. Another question is that of priority of name, and still another the use of geographic names such as "Japanese oil," "Swedish asthma cure," etc., and there are one or two of these in the National Formulary which do not seem to be justified. Suggestive therapeutic names and habit-forming drugs are also mentioned,

and also the numerous preparations which owe their virtue to the alcohol content.

A plea to justify the use of such a name for his preparation was made by one manufacturer on the ground of the use of a similar name in the National Formulary "beef, iron, and wine" product, and the commissioner of internal revenue has seriously considered putting the latter into the alcoholic beverage class.

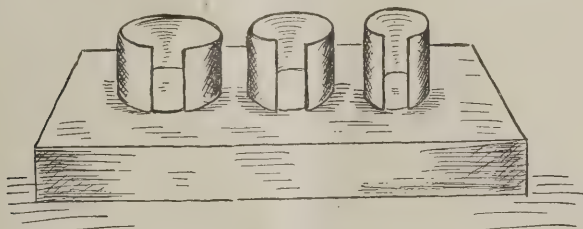
When the best element among the druggists is strenuously endeavoring to remove the stigma of liquor selling from their profession, it is hard to see why products of that type should be retained.

In conclusion, the author says that there are many excellent features in the National Formulary nomenclature which are not referred to because his chief purpose is to call attention to its shortcomings, leaving the meritorious features to others.

In the course of his paper the author reported that in reply to a communication made by him on the subject to the chairman of the National Formulary committee over a year ago he received a reply which showed that the committee "did not intend to give much relief to the embarrassment."

Keeping Round Labels.

Herewith is illustrated a device constructed by L. W. Marshall, who supplies the drawing and the following description and directions for making:



A Home-Made Round Label Holder.

The above rough drawing represents a handy arrangement for keeping round labels in order. Procure a block of wood and have a carpenter saw holes the size of the labels used. Save the round blocks. Take pieces of heavy cardboard (or pieces of mailing tubes and cut slits up their sides about an inch wide) and insert them in the openings and place the round blocks back. The latter will hold the tubes in place. Labels may then be stacked in the tubes where they will always be in place.

Medical Examining Board Results.

Statistics based on the examinations by State licensing boards, given in the *Journal of the American Medical Association*, show that 7,770 candidates representing 137 medical colleges were examined during 1908, with 21.7 per cent. of failures. There were 6,477 candidates who were graduated during the last five years, of which number 17.3 per cent. failed. Of the 796 who were graduated previous to 1903, 31.5 per cent failed. Non-graduates were examined in seven States, the total being 494, with 56.8 per cent. of failures. Of the 4,741 candidates who were graduated in 1908 about 65 per cent. took examinations in the States in which their colleges were located, showing that any State allowing low-grade colleges to exist is itself the chief recipient of the poorly trained output. The colleges of Illinois furnished

843 candidates with 12.9 per cent. of failures. Pennsylvania furnished 700 candidates with 6.9 per cent. of failures. The failure percentage for New York colleges was 3.2; for Maryland colleges, 24.2; for Tennessee colleges, 35.7, while for the Mississippi colleges it was 77.8 per cent.

All States require an examination of every applicant unless the candidate already holds a license from some other State. In the classification of colleges only 48 have failure percentages of less than 10 per cent., 29 have between 10 and 20 per cent., 46 colleges have over 20 per cent. of failures and 15 are unclassified.

During 1908 altogether 7,360 physicians received licenses; 6,084 by examination, 184 under exemption clauses and 1,092 through reciprocity. Of those licensed under the reciprocity provision 225, or over 20 per cent., received their original licenses in Illinois, the next highest two figures being 100 in New York and 94 in Iowa.

Official Names and Misbranding.

Since the passage of the food and drugs act official titles and synonyms are of more interest to the drug trade than ever before, and George M. Beringer finds that the titles and synonyms given in the *Pharmacopœia* are not ideal. He read a paper on this subject at the recent meeting of the New Jersey Pharmaceutical Association in which he argued that the attempt of the *Pharmacopœia* makers largely to eliminate synonyms from the body of the book and to include some of the dropped names in the index had not only resulted in turning out a poor piece of work, so far as this phase of it is concerned, but showed a disposition to shirk responsibility. He also had a few words to say about the geographical names of the *Pharmacopœia*, as Canada turpentine, Spanish licorice, German chamomile, etc., and showed how the use of these names might result in a technical infraction of the government's regulations regarding misbranding. He recommends that a note be printed in the *Pharmacopœia* to the effect that such names are used to designate certain styles or grades of drugs, and not necessarily to indicate the countries of their origin.

Attracting Members to Meetings.

One of the queries at the recent meeting of the Pennsylvania Pharmaceutical Association was, "How is it possible to interest and stimulate the stay-at-home druggist, who pays his dues but never attends any of the meetings which would bring him in touch with other pharmacists?" Franklin M. Apple undertook to answer it. He said that the member should be made to feel that he had duties to perform other than merely lending his moral and financial support to the association. If he were put on a committee one year, for instance, he would be more apt to be present the next. Then the meetings should be held at different accessible points throughout the State, and at roomy and not too expensive hotels. This would offer the inducements of novelty and comfort, and the expense of attending would not overtax the less opulent members. Perhaps it would heighten the interest of the members in the meetings if the committee on queries and papers selected in advance leaders to open the discussions of the subjects introduced, as is done in some associations.

Compound Pepsin Preparations.

In a paper on "The Compound Powder of Pepsin and the Compound Elixir of Pepsin," read at the May meeting of the Philadelphia branch of the American Pharmaceutical Association, George M. Beringer took the ground that no matter how much of a "monstrosity" was the pulvis digestivus of the National Formulary, so long as physicians prescribe it, druggists must supply it. And if they must supply it, said he, they should have a standard formula which will insure a product as nearly uniform as possible. The same remarks he applied to the compound digestive elixir. Mr. Beringer agrees with his associates on the National Formulary committee that as much of the titles of these and other N. F. preparations as carry therapeutic suggestions should be dropped.

After due theorizing and experimentation the author of the paper suggests the following names and formulas for incorporation in the National Formulary in place of similar ones now there:

Pulvis Pepsini Compositus.

Compound Powder of Pepsin.

Powdered pepsin (so-called insoluble variety).....	15 grammes.
Pancreatin	15 grammes.
Diastase	1 gramme.
Lactic acid.....	1 c.c. (mil.)
Hydrochloric acid.....	2 c.c. (mils.)
Sugar of milk.....	enough.
To make 100 grammes	

Add the acids gradually to 60 grammes of sugar of milk and triturate until they are thoroughly mixed. Mix the pepsin, pancreatin and diastase and incorporate this with the acidified sugar of milk. Weigh and add sufficient sugar of milk to make the weight 100 grammes. Triturate the mixture thoroughly and finally rub through a hair sieve and preserve the powder in well stoppered bottles.

Elixir Pepsini Compositum.

Compound Elixir of Pepsin.

Pepsin (soluble "scales or granular" variety).....	15 grammes.
Pancreatin	15 grammes.
Diastase	1 gramme.
Lactic acid.....	1 c.c. (mil.)
Hydrochloric acid.....	2 c.c. (mils.)
Glycerin	250 c.c. (mils.)
Alcohol	200 c.c. (mils.)
Oil of orange.....	2 c.c. (mils.)
Cudbear	1 gramme.
Water.....	enough to make 1,000 c.c. (mils.)

Mix the acids with the glycerin and 500 c.c. (mils) of water, add the pepsin, pancreatin and diastase, and macerate with occasional agitation until solution is effected. Then add gradually the alcohol, in which the oil of orange has been dissolved, agitating after each addition. Now add the cudbear and sufficient water to make the preparation measure 1,000 c.c. (mils). Macerate for six hours, with occasional shaking, and then filter.

George W. Hague says in *Meyer Brothers Druggist* that many manufacturers prevent gelatinization of their fluidextracts by adding to them about 30 grains of sodium or potassium hydroxide to the pint. What other effects this may have he does not state.

To Tell Natural from Synthetic Camphor.

In distinguishing natural from synthetic camphor, the melting point is of no practical value, says W. Lohmann (*Berichte through Journ. Soc. Chem. Ind.*), especially if unoxidized camphene, borneol, or isoborneol be present in the synthetic product. The optical rotation of alcoholic solutions forms the best test, synthetic camphor being optically inactive, whereas natural camphor is markedly dextrorotatory, so that in a mixture of the two, the amount of natural camphor present might be determined polarimetrically. The statement in text-books that artificial camphor does not give a syrupy liquid when triturated with an equal quantity of chloral hydrate is erroneous. Pure synthetic camphor behaves exactly like natural camphor towards chloral hydrate. Probably the error has arisen from the presence of pinene hydrochloride in the synthetic camphor employed. Since borneol melts at 208° C., camphene at 50° C., and pure synthetic camphor at 175° C., it would be possible to have a mixture of the three with the correct melting point. Consequently small fractional sublimations should be made, and the melting points of the products determined; also the amount of unsublimable matter should be weighed. The presence of pinene hydrochloride as an adulterant of either natural or synthetic camphor is readily shown by heating with twice its weight of calcium hydroxide, free from chlorine, until all the camphor has volatilized. The residue is then treated with hot water, filtered, and tested with silver nitrate reagent after acidifying with nitric acid. No opalescence should be evident.

Warm Weather Formulas.

Perspiration Powder.

Burnt alum.....	12 parts.
Salicylic acid.....	3 parts.
Starch	18 parts.
Violet talcum powder.....	120 parts.

Perspiration Paste.

Powdered starch.....	50 parts.
Salicylic acid.....	1 part.
Mucilage of tragacanth.....	enough.

Perspiration Lotion.

Burnt alum.....	1 part.
Boracic acid.....	1 part.
Elder flower water.....	30 parts.

For Malodorous Perspiration.

The *American Journal of Clinical Medicine* gives the following formula for a deodorant perspiration powder:

Bismuth subnitrate.....	1 ounce.
Potassium permanganate.....	1½ ounces.
Rice flour.....	2 ounces.

Theobromine Content of Cacao Beans.

It is shown by Kreutz (*Zeit. Nahr.-Genussm. through Journ. Soc. Chem. Ind.*) that about one-half of the theobromine present in cacao beans is in the free state and can be extracted directly by means of chloroform; the remainder is present in a combined form and goes into solution in chloroform, only after the cacao has been subjected to hydrolysis (heating with dilute sulphuric acid). The fat is extracted together with the theobromine and the two may be separated by treatment with cold carbon tetrachloride.

Abstracts.

Fictitious Scammony in French Commerce.

Warin (*Journ. Pharm. Chem.* through *Pharm. Journ.*) reports that a fictitious scammony, prepared from scammony resin instead of the juice of the plant, which has a less active purgative value than the genuine drug, is met with in French commerce. It occurs in brownish cakes less dense than the genuine drug, with a duller and more porous fracture. It softens under the teeth; when rolled between the fingers, and warmed by breathing on it, it forms an elastic ductile pill. True scammony is gritty under the teeth, and does not easily roll in the fingers as above; the pill formed is friable. The odor of the false scammony is peculiar, recalling that of resin and cooked plums; its powder is lighter and yellowish-gray instead of blackish-gray, and its appearance in emulsion with water is different. The filtered aqueous decoction does not show the fugitive red color given by that from true scammony with tincture of iodine. The alcoholic solution of the resin gives a marked red color reaction, which is not obtained with scammony. When the powder is thrown into oil of turpentine it forms fibrous flocks, which sink and aggregate at the bottom of the liquid. Natural scammony powder remains in grains in turpentine oil, and sinks without aggregating.

Permanent Solution of Aluminum Acetate.

Reference was made in our news columns last month to the presentation of a report by Dr. Diekman at a meeting of the New York branch of the American Pharmaceutical Association on several pharmaceutical articles in foreign journals, one being on solutions of aluminum acetate. This was by Gruening (*Pharm. Centralh.*) and was abstracted by Dr. Diekman as follows: The author states that the liquor aluminii acetati of the German Pharmacopœia, as is well known, contains as side products aluminum sulphate, calcium sulphate and acetic acid, the latter being purposely added in some excess to prevent the rapid production of sub-salts of lead, which however it fails to do to any extent. The author compares solutio Burowii with the official liquor, stating that although the former contains more foreign constituents than the latter; it still is much more permanent. From this he concludes that it is not the number of foreign constituents, but the kind, which influences the permanency of the preparation. He points out that one foreign constituent, namely calcium sulphate, contained in the official liquor, is not found in Burow's solution, and to its presence he attributes the precipitation and gelatinization so often observed in case of the official liquor. Although the calcium sulphate, owing to its lesser solubility in the liquid, is present only to the extent of about 0.4 per cent. it is held by the author that this amount is sufficiently large to account for the decomposition of the preparation. He goes into the theory of the matter somewhat and concludes by giving his method of removing the calcium sulphate from the official liquor, as follows: To a quantity of the liquor prepared from 1,200 grammes of aluminum sulphate he adds about 140 grammes of commercial barium acetate, or a solution of 90 grammes of barium carbonate in 180 grammes of hot 30 per cent. acetic acid. After al-

lowing the barium sulphate to subside, the supernatant liquid still reacts for sulphuric acid; he adds enough more of barium acetate, so that the latter is in slight excess. He states that this slight excess retards the separation of the barium sulphate. In order to remove the excess of barium salt, he adds 10 grammes of aluminum sulphate, dissolved in a little water, after which addition the barium sulphate separates out rapidly. The resulting liquor is allowed to stand several days, and the clear portion removed as required. It contains as foreign substances, calcium and aluminum acetates, the latter, however, in lesser quantity than in the original liquor. His experiments with a liquor thus prepared cover a period of 1½ years. He finds that when a sample of the liquor prepared in accordance with the official directions is heated to 70° C., it becomes decidedly cloudy, and at 87° C., is gelatinized completely. The same liquor, deprived of its calcium sulphate by the method given, when heated to 87° C., became only slightly cloudy. At the boiling point it clouded materially, but did not gelatinize even after prolonged boiling.

An Organic Source of Iron.

According to Tarbouriech and Saget (*Bull. Sci. Pharmacol.*) a variety of rumex, rumex obtusifolius, is richer in iron than any plant hitherto examined by them, the dried root containing 0.447 per cent. By a series of micro-chemical tests they have been able to prove that the iron is present in organic combination, inasmuch as it does not respond to the usual tests for iron. The authors have made careful analyses of the compound in order to ascertain its chemical identity, but investigations of this character are very difficult owing to the ease with which complex organic substances split off any inorganic elements that may be present. At the present stage of the work the evidence suggests that the compound is analogous to the ferric derivatives of the nucleones of Siegfried, which are so largely present in the bodies of animals, particularly in the muscles and in milk. These nucleones are generally considered to be the agents that are charged with the transport of iron, phosphoric acid and calcium in the body, and if further experiments confirm their identity with the organic compound of iron present in rumex a satisfactory explanation will thereby be afforded of the remarkable therapeutic results that have been obtained by the administration of powdered rumex by the mouth.

A Characteristic Reaction of Uric Acid.

Ganassini (*L'Union Pharm.*) proposes the following test for uric acid, it being at the same time very sensitive and yet easy of execution: If a solution of a zinc salt be added to an aqueous solution of uric acid or of an alkaline urate obtained by the addition of a slight excess of sodium or potassium hydroxide, a gelatinous precipitate of basic urate of zinc will form. If this precipitate be collected on a filter, it will turn from white to greenish-blue and finally sky-blue, in consequence of oxidization under the influence of the oxygen of the air. This reaction is not disturbed by the presence of foreign substances such as albuminoids, and it is serviceable for demonstrating the presence of uric acid in the urine, in the blood or in the tissues.

Drug Assaying.

In connection with sending out a report on drug assaying presented at the last meeting of the Association of Official Agricultural Chemists, by Dr. Kebler, C. E. Parker calls attention to the fact that under the auspices of that association a systematic study of methods of drug assaying has been in progress for five years, the results being reported in the annual proceedings of the association, which are published as bulletins of the bureau of chemistry. This investigation is carried on under the general system of the association for improving specific branches of analysis, including articles of food, beverages, condiments, soils, fertilizers, etc. The usual method of procedure is to send out to competent analysts who volunteer to collaborate and who need not be members of the association, uniform samples of substances and detailed instructions in the methods by which the samples are to be analyzed. Collaborators are invited to submit with their analytical results any useful observations or criticisms arising from their experience. The individual reports are collated and tabulated by the referee, and made the basis of a report to the association, which includes recommendations for further procedure. This may involve the abandonment of unsatisfactory methods, with further trial of such as seem promising, possibly with the introduction of some modification which experience has indicated may be useful; if a method appears satisfactory it is recommended for adoption as a provisional method, which, after further successful probation, may be made official. The suggestion has appeared, says Mr. Parker, in view of the labor involved in collecting the data for the tests and assay methods of the Pharmacopœia, and the time which elapsed between the meeting of the last revision convention and the final publication of the work, that the committees having these functions should continue active in the interim between revisions. This idea may be utilized in the future, but no steps appear to have been taken to apply it to the advantage of the next revision. In the meantime, through the collaborators with the A. O. A. C. a body of information partially covering the same field is being accumulated and recorded where it will be available to the revision committee.

Bolivian Cinchona Barks.

In addition to a false cinchona bark, apparently cascarilla magnifolia, Hartwich (*Schweiz. Woch. Chem. Pharm.*) describes three true Bolivian cinchona barks, cinchona morada (5.48 per cent. of total alkaloids), cinchona anaranjada (3.65 per cent.) and cinchona canela (4.65 per cent.). The last named is distinguished by the presence of stone cells. With all three varieties a positive thalleoquin reaction is obtainable. On account of their low percentage of alkaloids, however, it is claimed that these barks cannot compete with the Javanese drug.

Mending Broken Pestles.

Case (*The Spatula*) suggests that when wooden pestle handles are broken off at the joint, repair may easily be made by boring a hole in the broken end, from $\frac{3}{4}$ to 1 inch deep, gluing in a cylindrical stick, cleaning out the hole in the wedgewood part and cementing in the handle with plaster.

"Hydrocyanate of Iron."

An examination of a preparation marketed under this name as a remedy for epilepsy hysteria, etc., is reported in the *Journal of the American Medical Association*. The term "hydrocyanate of iron," says the *Journal*, is "an unfamiliar one and was not to be found in any available reference work on chemistry. Thinking that the term might have been loosely applied to ferrocyanide of iron or Prussian blue (a compound once suggested for epilepsy, but long ago considered useless), the manufacturers were asked if such were the case. They replied that their preparation was 'not Prussian blue in any sense of the word,' and added that 'Prussian blue has no curative properties as applied to all forms of epilepsy.'" The preparation was then analyzed and from the analysis it is concluded that "hydrocyanate of iron" is essentially a mixture of approximately equal parts of talc and Prussian blue, containing traces of organic matter having the general properties of alkaloids. It may be noted that this iron product is marketed by the same company that puts out narkine, to which some reference is made in the *CIRCULAR* for September, 1908, page 412.

Stream Pollution.

Price and Stokes (*Journ. Am. Med. Asso.*) say that the pollution of streams by distillery waste is a comparatively recent problem since the concentration of the distilleries, due to changes in the trade, in the neighborhood of cities and in thickly settled communities has given rise to nuisances varying in extent according to the process employed and the size of the stream receiving the waste. The legal principles involved are fairly settled, but their application to this particular question is somewhat new. In the specific case referred to in this paper, the pollution of the Patapsco River, it was necessary to show the pollution and its cause, and the latter is of interest on account of the fungus to which it was found to be due. The species which caused an almost intolerable odor from the water of the river a short distance below the distillery and killed a large number of the fish, was found to be *leptomitus lacteus*, an alga belonging to the *saprolegniæ*, which is described and illustrated. When cultivated in vitro it quickly disappeared, which the authors attribute to its exhaustion of its own nutriment as well as to autointoxication by its own products. The cause of the death of the fishes was not ascertained by the examinations made.

The Red Line in Urine Testing.

Dawbarn (*Arch. Diagnosis*) suggests the cause of the presence of a red line sometimes developed by the contact of urine with cold nitric acid in testing for albumin. He has found the line present in every case of insufficient action of the liver, when there was present persistent constipation; or in women having either a subacute or chronic pelvic peritonitis or pyosalpinx, and with pus or other excrementitious material continually diluting the blood. The line is to be seen with or without the presence of the white line of coagulated albumin, in the former case being immediately above the albumin. He observed that in old people with retained fecal masses the red ring was invariably present. Upon their expulsion the red line would quickly disappear.

Fraudulent Nostrums for Drug Addictions.

Kebler in a paper presented at the recent meeting of the American Medical Association said that examinations made during the past few years by the United States department of agriculture had shown that preparations advertised for the treatment of drug addictions usually contained large quantities of the drug for which treatment was instituted. He cited examples in which he had found preparations containing as much as thirty-two grains of morphine to the fluid ounce. Sometimes they contained also atropine, strychnine, quinine, or other alkaloids. In some cases there was a gradual reduction in successive supplies of the preparation, but the reduction was so small as virtually to extend the treatment over years. In other cases the treatment was with packages serially numbered from one to ten, and each package was found to contain the same amount of the habit-forming drug. The books of some institutions showed that the treatment was intended to be continued indefinitely. These practices were exceedingly difficult to control, but the post-office department had been of the greatest assistance, and it was hoped that it would be successful in eliminating them entirely.

Colorimetric Test for Phosphates.

Pouget and Chouchak (*Bull. Soc. Chim. through School Mines Quart.*) suggest a test for phosphates, based on the fact that clouding and a more or less intense coloration result on the addition of a molybdate together with a solution of strychnine to a solution containing a phosphate. The depth and intensity of the color depend upon the relative proportions of the substances taking part in the reaction. The suggested reagent is prepared by adding to 10 c.c. (mils) of a 15-per cent. solution of sodium molybdate, 2.5 c.c. (mils) of nitric acid, and 1 c.c. (mil) of a cold saturated solution of strychnine sulphate; filtering if necessary. This mixture turns yellow on standing; although it may serve even when colored, for qualitative work, it should be freshly prepared when wanted for quantitative estimations. The solution to be tested should be acidified with nitric acid before adding the reagent; the reagent and the solution should be allowed to stand in contact for twenty or twenty-five minutes before the coloration is determined. The color may be compared with that obtained with solutions containing known amounts of phosphates. The authors say this test will detect 1 in 20 millions.

Influence of Sewers on Tuberculosis.

Kober (*Bull. Johns Hopkins Hosp.*) discusses the question of the influence of sewers and of general sanitation upon the prevalence of tuberculosis. He speaks first of the sources of tuberculous infection, considers the predisposing causes of this disease and then goes on to consider the influence of sewers on the prevalence of tuberculosis. He believes that the amount of polluted air resulting from improper sewage disposal by means of cesspools and other makeshifts is a large factor in preparing soil for this disease. He quotes statistics from certain cities where there has been a very large reduction in tuberculosis and other diseases after a proper sewage system has been established.

The Bleaching of Flour.

Flour is bleached commercially by nitrous oxide vapor. Ladd and Bassett (*Journ. Biol. Chem.*) have shown that nitrites or nitrates or nitrite-reacting or nitrate-reacting material are among the products formed, and that bread baked from the flour by the domestic method will contain from one-third to one-half the nitrite-reacting material found in it. The proportion of nitrates in the bread increases as the nitrites decrease, the proportion depending on the method of baking. The bleaching agent acts both on the fat and on the gluten of the flour. The gluten of the flour is less digestible than that of unbleached flour and the baked gluten or bread made from bleached flour shows a similar but smaller difference in digestibility. The experiments show that the process of bleaching is essentially different from the natural ageing of the flour.

Test for Antipyrin in Pyramidon.

Primot (*Bull. Sci. Pharmacol.*) describes a simple test for antipyrin in pyramidon, depending upon the fact that vanillin gives a yellow coloration with antipyrin, and not with pyramidon. In performing the test a small portion of the pyramidon is heated on a water-bath in a porcelain dish with 2 c.c. (mils) of a reagent composed of vanillin, 1 gramme; hydrochloric acid, 3 grammes; distilled water, 3 grammes; alcohol (95 per cent.), 100 grammes. If antipyrin be present a deep-orange residue is left in the capsule after evaporation, and if the operation be conducted slowly it is possible to detect an extremely small quantity by the production of a fleeting-yellow color. The delicacy of the test is reduced by the presence of pyramidon, but 0.005 gramme of antipyrin can easily be detected in 0.1 gramme of pyramidon.

A New Adrenalin Reaction.

Solution of adrenalin according to Fraenkel and Allers (*Biochem. Zeit. through Journ. Soc. Chem. Ind.*) when warmed with iodic acid or with potassium di-iodate and diluted phosphoric acid, gives a fine rose-red coloration, or an eosin-red color in the case of very dilute solutions. One part of adrenalin in 300,000 of solution can be detected by this reaction. In carrying out the test, the adrenalin solution is mixed with an equal volume of N/1000 potassium di-iodate solution and a few drops of diluted phosphoric acid, and heated to incipient boiling. The red color changes to brown on addition of ammonia. The red color reaction depends upon the addition of iodine to the adrenalin molecule, and the authors hope to base a quantitative method upon it. The reaction is characteristic of adrenalin.

New Method of Preparing Lemon Juice.

Stock (*Journ. Pharm. Chem. through Pharm. Journ.*) says that lemon juice is now prepared by centrifuging the pulp. It is stated that the juice so obtained is better in flavor, since none of the seeds are crushed, than when a press is used; it is also clearer. The residue is easier to handle than the press cake obtained by the older method. Centrifugation would probably be more convenient to work, and give better results with other fruits.

The Modern Materia Medica.

Agaroma, an agar-agar preparation introduced as a laxative in atonic constipation.

Anorrhæal suppositories are said to contain sodium sozoiodolate, extract of witch hazel, zinc oxide, alumnol, extract of suprarenal glands and glycerin. They are put forward as a remedy in hemorrhoids.

Antipon, an English preparation, advertised as an antifat remedy, is said to contain citric acid, benzoic acid, saccharin, oil of wintergreen and cochineal. *Antipon sweetening tablets* are said to contain an artificial sweetening product and are offered as a substitute for sugar in obesity.

Arsan is defined as arsen-glidin, containing about 4 per cent. of arsenic.

Bromural, mono-bromo-isovalerianyl urea, is put forward as a hypnotic.

Cholelysin siccum is advertised as a cholagogue, but consists, according to Zernik, almost entirely of powdered soap combined with 13 per cent. of albumin.

Corosana is a cod liver oil "preparation," in the form of sticks which are said to contain in addition to the oil, chocolate, lecithin, phosphoric acid and calcium phosphate.

Desalgin (colloidal chloroform), is an analgesic in powder form which represents 25 per cent. of chloroform combined with albumin. It is put forward for use in cases of gall stones, intestinal colic, asthma and catarrhal diseases of the bronchial tubes.

Gonyval is the isobornyl ester of isovalerianic acid. It forms a neutral liquid, possessing an agreeable taste and an odor less pronounced than most of the valerian preparations. It is proposed for use whenever valerian preparations are indicated.

Hygiopon is an iron preparation, made electrolytically. It forms a clear greenish-yellow liquid with an acid reaction and contains, according to Bischoff, 22 per cent. of ferrous chloride, 3.6 per cent. of ferric chloride, 2.8 per cent. of sodium chloride and 6.67 per cent. of free hydrochloric acid. The preparation has apparently no advantage over a ferrous chloride solution prepared in the regular way.

Ichmol. A greenish liquid recommended for toothache. It consists of an alcoholic solution of oil of cloves and other essential oils, colored green with chlorophyll.

Indoform, which was said to be salicylmethylene acetate, according to Frerichs, is not a chemical compound but a mixture of one part of salicylic acid and two parts of acetylsalicylic acid, with traces of formaldehyde and salicylic acid methylester.

Iodival is mono-iodo-valerianyl urea, $(\text{CH}_3)_2\text{CH}.\text{CH}.\text{CO}.\text{NHCONH}_2$. It is a white powder which is insoluble in cold water, but soluble in hot water, and alcohol. It contains 47 per cent. of iodine and is offered as a substitute for the iodides.

Leciferrin. A sweetened liquid which is said to contain 0.5 per cent. of ovo-lecithin and 0.3 per cent. of freshly precipitated ferric hydroxide. Zernik and Kuhn, however, could not verify this statement. It is exploited as an appetizer and regulator of digestion.

Leistner's Tablets, exploited for all cases of gastro-intestinal troubles, appear to contain nothing but powdered cascara sagrada bark.

Morphosan is morphine bromo-methylate. It forms white crystals, difficultly soluble in cold water, but easily soluble in hot water. It acts like morphine hydrochloride but is much weaker. It easily crystallizes out from aqueous solutions. The solutions turn brown on sterilizing.

Orundon. Two preparations, a liquid and a solid, are marketed under this name and recommended as antirheumatics and antineuralgics. According to Aufrecht the liquid contains as its chief constituents iodine, salicylic acid and piperazin, while the solid, which is also recommended for gout, contains urea, diuretin and the sulphates and carbonates of magnesium, lithium and sodium.

Ozonal and Sedlozon are trade-marked names for oxygen baths, produced by the action of sodium peroxide and sodium bicarbonate on water.

Phosrachit is a phosphoretted cod liver oil preserved by the addition of 1 per cent. of limonene and containing 0.01 per cent. of phosphorous.

Pixavon. An odorless liquid tar soap recommended as a scalp wash to prevent baldness of parasitic origin.

Succinol. A purified tar oil, obtained by the destructive distillation of amber. Put forward for use in pruritus, psoriasis, etc.

Trypanosan. A halogen substitute of fuchsine said to have a destructive action on trypanosomes.

Thiozone. Erdmann has shown that sulphur under certain conditions forms a compound analogous to ozone, called thiozone $\text{S}=\text{S}=\text{S}$. This substance has the property of adding itself to chains containing double bonds, especially when the double linkage is located at the end of the chain. Thus on treating linalylacetate with thiozone, the thiozonide is formed which reacts with sodium sulphide forming a thiozonidate—also called thiozone. This product, which is odorless, is said to have many advantages over organic sulphur compounds and is recommended in scabies, etc.

Valisan. A bromine compound of bornyval representing 25.2 per cent. of bromine. It is put forward as a sedative.

Emulsion of Fat for Use in Diabetes.

Rochaix according to the *Journal de médecine de Paris* (through *N. Y. Med. Journ.*) employs the following emulsion of fats in the treatment of diabetes:

Oil of peppermint.....	6 drops.
Oil of lemon.....	6 drops.
Medicinal soap (freshly prepared) ..	½ dram.
Cherry laurel water.....	5 drams.
Orange flower water.....	2½ ounces.
Saccharin	3 grains.
Olive oil (or sesame oil) enough to make.....	16 ounces.

Quinine as a Poison.

A case of death following an overdose of quinine is reported from England. The subject was a woman 36 years old. She took, it was stated, 25 grains. Autopsy showed congestion of the brain, liver and lungs. The coroner believed that this had been brought about by the quinine.

Notes and Queries.

NOTICE.—It is desirable that all questions to be answered under this head should be received before the fifteenth of the month and they must be accompanied with the name and address of the writer.

Queries are not answered by letter. The information supplied in these columns is intended for the benefit of our readers in general, not for the profit of the individual inquirer only.

Omission of the Apostrophe from the Title of this Publication.—F. O. C., New York.—At first (January, 1857) the title of this publication was AMERICAN DRUGGISTS' CIRCULAR AND CHEMICAL GAZETTE. In January, 1866, it became THE DRUGGISTS' CIRCULAR AND CHEMICAL GAZETTE. The apostrophe was first omitted from its name in December, 1877, while Dr. Newton was still its editor and proprietor, and the title then remained THE DRUGGISTS CIRCULAR AND CHEMICAL GAZETTE until January, 1907, when it was changed to its present form. We have heard that Dr. Newton dropped the apostrophe in order that the title when set in large type, as on the cover page, would make a more symmetrical line. That there was good precedent for his action is shown by the exclamation, "For goodness sake!" the possessive case for "goodness" evidently being meant, but the apostrophe being omitted in this case for the sake of the tongue and ear instead of the eye.

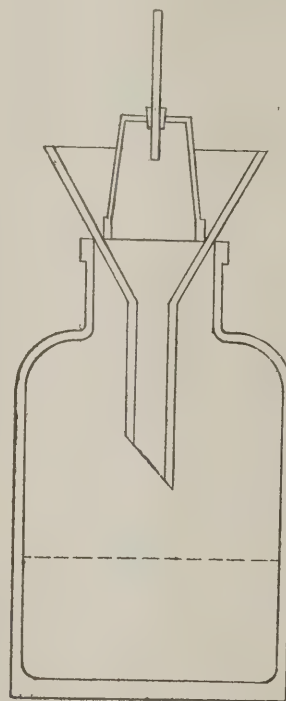
Selling Cigars on Sunday as Drugs.—W. H. L., Ontario, seeks information regarding the right of a druggist to sell cigars as drugs on Sunday. He has heard that this right has been established in a number of the States through litigation and would like to hear of the particulars.

We have known druggists who positively refused to sell cigars on Sunday, and we have known of prescriptions having been written for cigars by physicians and filled on Sunday, but we do not recall any case in which the rights of the druggist in the matter have been determined by the courts. If anyone knows of such a case we hope he will send us an account of it.

Stokes' Liniment.—J. E. K., Indiana, wants a formula for a "liniment with eggs, turpentine, vinegar, spirits and oil of some nature, that will make a nice, light-colored mixture." He gives a fairly accurate description of the acetic turpentine liniment of the National Formulary, known also as Stokes' liniment and St. John Long's liniment, and we suspect that the formula for this is what he is after.

Compound Elixir of Glycerophosphates without Sugar.—W. S. T., New Jersey.—We do not know just what you mean by "elix. glycerophos. comp.," but suspect you have in mind the preparation of the National Formulary, which, while having no "compound" in its official title, could really be classed as a compound elixir. The only sugar in this preparation is that introduced with the aromatic elixir which is one of its ingredients, and we fancy that an "aromatic elixir" might be made with glycerin in place of syrup, and used in the manufacture of elixir of glycerophosphates. Of course, however, the latter would then not be official and it would be unlawful under the New Jersey food and drugs act for it to be sold under an official name.

A Home-Made Device for Continuous Filtration.—"A Reader," Massachusetts, favors us with the drawing shown herewith. In the device the filter is a piece of muslin tied over the mouth of an ordinary flower pot. In the aperture in the bottom of the pot is inserted a perforated cork through which has been run a section of glass tubing. Attached to the outside end of the glass tubing is a rubber tube to be used as a siphon. The other end of the siphoning tube connects with a bottle, placed at a suitable height, containing the liquid to be filtered. The adjustment of the inverted flower pot into a funnel, and the support of the latter by the bottle into which the filtrate is to pass, are clearly indicated by the drawing.



Funnel and Siphon for Continuous Filtration.

The flow of liquid having been started, it will continue just as fast as the liquid passes through the filter, but, of course, no faster, so long as the other end of the siphoning tube is kept in the liquid and at a greater height than the filter.

If desirable, cotton or sand or other filtering mediums could be used in place of, or in conjunction with, the muslin.

Essence of Pepsin.—J. K. H., North Carolina.—This is an official (N. F.) preparation. In North Carolina it is unlawful to sell as and for an official preparation one which is not of official strength, quality and purity, unless the deviation from the official standard is plainly indicated.

A number of formulas for essences of pepsin other than the official, or notes on the subject, may be found in the volume of the CIRCULAR for 1906, in the numbers for June, page 204; July, page 249; August, page 295; and November, pages 392 and 393.

Compound Solution of Hypophosphites without Sugar.—W. S. T., New Jersey.—The official (N. F.) compound solution of hypophosphites contains no sugar.

Barbers' Sea Foam and Shampoo.—F. G., California.—From one to half-a-dozen or more formulas for shampoos and preparations of this nature are given in each of the following numbers of the CIRCULAR: For 1908—January, page 23; March, page 119; and July, page 324. For 1907—July, page 473. For 1906—May, page 162; July, page 241; and October, page 363. For 1905—August, page 280. Sea foam is just a fanciful name for a shampoo preparation.

Perhaps one of the following formulas will give you an idea which you may utilize in making what you want:

I.	
Potassium carbonate.....	½ ounce.
Powdered castile soap.....	1 ounce.
Water	8 ounces.
Oil of bay.....	5 minims.
Alcohol.....	enough to make 1 pint.

II.	
Powdered castile soap.....	14 ounces.
Potassium carbonate.....	3½ ounces.
Water	28 ounces.
Glycerin	7 ounces.
Oil of lavender.....	30 minims.
Oil of bergamot.....	30 minims.
Perfume	enough.

Mix the first three ingredients and allow them to stand overnight. Then stir well together, heating gently, to make a homogeneous mixture, and add the others.

The product will be in the form of a paste, which may be dissolved in a mixture of 1 pint of alcohol and 7 pints of water.

Eggs of Pharaoh's Serpents.—D. A. L., Pennsylvania.—The toy referred to may be made of comparatively harmless material by the following formula:

Potassium dichromate.....	2 parts.
Potassium nitrate.....	1 part.
White sugar.....	2 parts.

Pulverize each ingredient separately, and mix thoroughly. Make small paper cones and press the mixture into them. They must be kept from light and moisture.

Sometimes they are made of mercurous sulphocyanate, HgCyS, a white precipitate formed by adding mercurous nitrate to a dilute solution of potassium sulphocyanate. The substance is a violent poison, and the fumes when it is heated are of course dangerous. The "eggs" have been eaten by children, who supposed them to be candy.

Moxie.—S. A. C., New York.—We do not know how this beverage is made, but have seen a statement to the effect that it was prepared from oats (*avena sativa*) and flavored with sassafras and wintergreen; although it is claimed by the manufacturers that it comes from a South American cane.

In expressing his opinion upon "valid evidence" and similar topics during the suit of the Moxie company versus the Modox company, Judge Brown in the United States circuit court, at Providence, R. I., had this to say a couple of years or so ago about the mystical origin of the name occasioning this contest: "The evidence raises serious doubts as to Lieut. Moxie, the discoverer. The existence of Lieut. Moxie

can hardly be regarded as a trade secret. No one but Dr. Thompson seems to have known about him, so far as this record discloses. But wherever Dr. Thompson may have found the name 'Moxie,' there remains a strong suspicion that Lieut. Moxie got his name from Dr. Thompson."

Several years ago we printed a formula for a preparation said to resemble moxie, which is as follows:

Oil of sassafras.....	15 minims.
Oil of wintergreen.....	15 minims.
Alcohol	1 ounce.
Fluidextract of gentian.....	1 ounce.
Compound syrup of sarsaparilla....	8 ounces.
Caramel	1 ounce.
Syrup.....	enough to make 5 pints.

Inflammability of Mixtures of Kerosene and Carbon Tetrachloride.—F. O. C., New York, asks, "What proportion of tetrachloride of carbon is necessary to render kerosene non-combustible?"

This query was referred to our good friend, Otto Raubenheimer, the "kerosene, benzin, naphtha, gasoline and carbon tetrachloride expert," who reports as follows:

If by "non-combustible" your subscriber means "non-burnable" then my answer will be that 99 per cent. of carbon tetrachloride is required. If on the other hand your subscriber wishes a mixture which is intended to be safer than kerosene itself, then I would suggest a mixture of equal volumes—not parts by weight—of kerosene and carbon tetrachloride. This will produce a mixture which will not ignite at ordinary temperature, or even in this hot temperature of 100° F. of to-day, and will be non-explosive—in other words, which will be perfectly safe.

It would be well to submit such a mixture to our bureau of combustibles, which makes so many laws and ordinances regarding the sale of such mixtures as insecticides, and get the opinion of the bureau on such a mixture.

This is about all I care to write on this subject in this hot weather, but when it gets cooler then I will give you readers more information on CCl₄ mixtures, as such information seems to be needed very much, judging from the many inquiries in your and other journals, although I have written a number of papers and answered a great many queries on that subject since May 10th, 1903.

We feel sure that F. O. C. and many of our other readers join us in thanking Mr. Raubenheimer for this note, as well as in looking forward with pleasure to the greater amount of information on the subject which he promises when the weather gets somewhat more frosty.

Hydrous Wool Fat in Resorcin Ointment.—F. M. Stage, New York, referring to the note in the CIRCULAR for last month, page 345, on the reason for the use of the hydrous rather than the anhydrous wool fat as a base for compound resorcin ointment, says:

I seem to get in on this compound resorcin ointment business all right. You say that a member of the committee simply found it all right. Now, I will tell you the reason it was used; or at least the reason why it should be used. The resorcin is very soluble in the 30 per cent. of water the hydrous wool fat contains. The resorcin should be thoroughly powdered and added first and the other ingredients of the ointment later. If you will only change the paraffin to white wax you will have an excellent preparation.

We thank Mr. Stage for this additional evidence of his friendship for us and interest in our readers, and trust that he will continue to favor us with occasional notes.

Kutnow's Powder.—In applying in England for registration for the name "effervescent Carlsbad powder," as a trade-mark, the proprietors of Kutnow's powder represented their product as being made from the genuine Carlsbad salts, improved by the addition of chemicals to make it effervescent, etc. In England the powder is known as "Kutnow's improved effervescent Carlsbad powder." The city of Carlsbad successfully opposed the registration in this country of the word "Carlsbad" in connection with the name of the powder.

The salts of the Carlsbad sprudel water according to Göttl (United States Dispensatory, fifteenth edition, page 1847) are:

In each pint—

Sodium carbonate.....	9.062 grains.
Magnesium carbonate.....	0.399 grain.
Ferrous carbonate.....	0.031 grain.
Calcium carbonate.....	2.020 grains.
Sodium chloride.....	8.724 grains.
Potassium sulphate.....	0.370 grain.
Sodium sulphate.....	19.960 grains.
Aluminum phosphate.....	0.215 grain.
Silica	1.052 grains.

Total 41.833 grains.

The National Formulary contains formulas for artificial Carlsbad salts—dry, crystalline and effervescent.

Otto Raubenheimer, New York, who specializes in formulas and book information, writes us that according to Hahn-Holfert-Arends, this powder consists of sodium and potassium sulphates, and calcium, lithium and strontium carbonates.

Interesting articles on Kutnow's powder were published in issues of the *Journal of the American Medical Association* for October 21st, 1905, and August 31st, 1907, and have been reprinted in the association's little book on the Propaganda for Reform in Proprietary Medicines. This booklet, by the way, should be in the hands of every druggist in the land. It is published by the American Medical Association, 103 Dearborn street, Chicago, and a single copy will be mailed, postpaid, for 10 cents in stamps. Any druggist who is induced by this notice to send for a copy of the booklet and does not think it worth the 12 cents that it cost him to get it, may send to us for a refund of his 14 cents.

Deterioration of Iodoform Ointment.—B. S. G., New York, has trouble with his iodoform ointment which, he says, "darkens and becomes granular," "although both the iodoform and the lard are O. K." He asks for help. Iodoform in contact with fatty substances is slowly decomposed into iodine and methylene iodide, the decomposition being hastened by the rancidity of the fat and by exposure to light. From this it is quite simple to deduce a method of prophylaxis.

In the first place the lard should be the U. S. P. article, and few pork-fats of the market approach within hailing distance of that standard. To be sure of getting the best the druggist should melt, filter and wash his lard, and free it from excess moisture. The iodoform should be in the form of the finest possible powder, and the finished product should be kept in light-proof, clean containers.

Heaves in Horses.—E. F. F., New Jersey.—We do not know the composition of the proprietary remedy or "cure" for heaves in horses that you mention. If it is labeled as a "cure" it is possible that its manufacturer will be dealt with by the United States government for misbranding, as it has been ruled in some cases that the use of this word on a label constitutes that offense.

We have often advised druggists to avail themselves of the books and pamphlets on subjects germane to their calling issued by the United States government, some of which are sent free for the asking and others of which are sold for a nominal price. One such book is called *Diseases of the Horse* and was issued in revised form in 1907. It is by expert veterinarians, is well printed, illustrated and bound, and would probably sell for two or three dollars if published in the usual way. We believe it may be obtained from the superintendent of documents, at Washington, for about 65 or 75 cents. Nearly a million copies of it have been printed, the present edition of 250,000 having been ordered issued by congress to meet the continual demand for the book.

Speaking of heaves, this book says: "When the disease is established there is no cure for it." It goes on to tell what should be done in the way of feeding and other attention for horses suffering from this trouble, and also exposes some of the tricks of horsemen who try to conceal the disease when it is present in any of their animals. We quote a few passages:

Proper attention paid to the diet will relieve the distressing symptoms to a certain extent, but they will undoubtedly reappear in their intensity the first time the animal overloads the stomach or is allowed food of bad quality. Clover hay or bulky food which contains but little nutriment have much to do with the cause of the disease, and therefore should be entirely omitted when the animal is affected, as well as before. It has been asserted that the disease is unknown where clover hay is never used. The diet should be confined to food of the best quality and in the smallest quantity. The bad effect of moldy or dusty hay, fodder, or food of any kind can not be over-estimated. A small quantity of the best hay once a day is sufficient. This should be cut and dampened. The animal should invariably be watered before feeding; never directly after a meal. The animal should not be worked immediately after a meal. Exertion, when the stomach is full, invariably aggravates the symptoms. Turning on pasture gives relief. Carrots, potatoes, or turnips chopped and mixed with oats or corn are a good diet. Half a pint to a pint of thick, dark molasses with each feed is useful.

Arsenic is efficacious in palliating the symptoms. It is best administered in the form of the solution of arsenic, as Fowler's solution or as the white powdered arsenious acid. Of the former the dose is 1 ounce to the drinking water three times daily. Of the latter one may give 3 grains in each feed. These quantities may be cautiously increased as the animal becomes accustomed to the drug. If the bowels do not act regularly, a pint of raw linseed oil may be given once or twice a month, or a handful of Glauber's salt may be given in the feed twice daily, so long as necessary. It must, however, be borne in mind that all medical treatment is of secondary consideration; careful attention paid to the diet is of greatest importance. Broken-winded animals should not be used for breeding purposes. A predisposition to the disease may be inherited.

While on the subject of books on diseases of animals we might mention a handy little volume entitled *Veterinary Counter Practice*, published by the *Chemist and Druggist*, London, and sold in this city by McKesson & Robbins for \$1.75. In it are given descriptions of diseases of horses, cattle, sheep, pigs, dogs, and poultry, with suggestions for their treatment. In mentioning this book we waive for the time being the

question of the propriety of druggists' engaging in counter practice even on the lower animals.

A further note on this subject, with some formulas, may be seen in the CIRCULAR for April, 1907, page 309.

Using Denatured and Wood Alcohol.—C. A., Massachusetts, writes:

Will you kindly let me know, if possible, through the next issue of THE DRUGGISTS CIRCULAR, how to deodorize denatured and wood alcohol, and if diluted denatured or wood alcohol will have the same effects on the face after shaving as diluted grain alcohol? If it has not, what other effects has it got?

This request seems to show that its writer is laboring under a serious misapprehension as to the legitimate uses to which denatured alcohol may be put, and as to the proper sphere of wood alcohol.

Denatured alcohol is grain alcohol to which has been added some substance (consisting in large part of wood alcohol) which is intended to make it unfit for medicinal use, and the law expressly says that such alcohol must not be used in the manufacture of liquid medicinal preparations. Except under certain very rigid conditions the adding to or taking from denatured alcohol of anything is forbidden. Those who handle denatured alcohol should obtain from the United States internal revenue collector for their respective districts circulars giving full information as to what their privileges are. Notes on this subject of particular interest to druggists are given in the CIRCULAR from time to time as they are made public at Washington.

In discussing the use of wood alcohol in toilet preparations we can do no better than to quote a few strong words on the subject which have already appeared in the CIRCULAR, credited to *Merck's Report*. Says that paper: "We cannot too strongly condemn the use of wood alcohol in any preparation whatever, intended for use either externally or internally. Numerous experiments and observations have shown that wood alcohol is exceedingly dangerous to the human being. Even small doses have repeatedly been known to cause partial to absolutely total blindness, and like results have been seen in cases where a person has been exposed only to the vapors of wood alcohol."

Nail Polishes.—McC., New York.—We do not know how the particular polish you name is made, but in a general way it may be said that such preparations are composed essentially of tin oleate, or of some slightly abrasive powder, as pumice, or infusorial earth, in the finest possible state of subdivision. If the polish is to be exhibited in the shape of a paste, a wax or petrolatum base may be used. Carmine may be added for its color.

We have known barium sulphate, calcined magnesnia, and the oleo-stearate of zinc (N. F.) each to be used as a nail polish.

The continued employment of nail polishes, as has often been pointed out in the CIRCULAR and elsewhere, is likely to result disastrously to the one employing them.

Further notes on this subject, with formulas, may be seen in the CIRCULAR for December, 1908, page 617; for March, 1908, page 131; for July, 1907, page 475; and for January, 1905, page 17.

Honey and Almond Cream without Almonds.—F. M., Illinois.—For a long time it was said that a widely-advertised "honey and almond cream" contained no honey. Whether the formula has been changed since the passage of the food and drugs act prohibiting misbranding, we have not been advised. Now, if we also omit the almonds, there will be little left by which to identify the product.

In the CIRCULAR for April there is a formula for a "honey and almond lotion" containing no honey, and it would be a simple and by no means a fatal matter to omit the oils of almonds designated in that formula and use in their places some other oil.

Perhaps one of the formulas given below will afford you a basis for further experiment:

Crème Simon à la Glycerine, an application for redness of the skin, blackheads, etc., consists, according to Koller, of a mixture of zinc oxide, glycerin, and talc, scented with a little patchouly oil.

Eau de Naples is put down by the same authority as being a mixture of 12 parts of borax, 100 parts of distilled water, 50 parts of rose water, 1 part of camphor, and 4 parts of tincture of benzoin.

Glycerin Balm for the Skin.

Powdered starch.....	½ ounce.
Water	1 ounce.
Glycerin	1 ounce.
Bay rum.....	2 drams.
Oil of bergamot.....	8 drops.
Oil of rose geranium.....	2 drops.
Extract of jockey club.....	2 drams.

The starch, water and glycerin must be mixed over a gentle heat, with constant stirring, and the other ingredients added. A touch of color may be given to the cosmetic by the addition of a little carmine.

Experimenting with a "greaseless" lotion of the stearate type, we have succeeded in obtaining a presentable product. First we made a base, so:

Stearic acid.....	3 ounces.
Dried sodium carbonate.....	80 grains.
Sodium borate.....	64 grains.
Glycerin	3 ounces.
Expressed oil of almonds.....	6 drams.
Water	13 ounces.

Dissolve the sodium salts in a mixture of the glycerin and the water, heating gently. Melt together the stearic acid and the oil on a water bath. Having the two liquids at the same temperature, about 90° C., pour the solution of the sodium salts into the mixture of oil and acid, gradually, stirring the while. Heat the mixture on a water-bath, stirring at frequent intervals, until effervescence ceases—about half an hour. Remove from the bath and beat until cool.

The Lotion.

Stearate base.....	10 ounces.
Glycerin	10 ounces.
Mucilage of quince seed (1 to 50) ..	25 ounces.
Bitter almond water.....	20 ounces.
Rose water.....	6 ounces.
Water.....	enough to make 100 ounces.

Triturate the base in a cold mortar with the mucilage, gradually added; continuing the trituration, add the glycerin and the aromatic waters; transfer the mixture to a bottle, and add in divided portions, agitating after each addition, enough water to make 100 ounces.

Good Sink Material.—E. W. Fellows, New York, seems to have solved the sink problem to his own eminent satisfaction. In reply to a request in last month's CIRCULAR, page 349, for views on the subject of the best material out of which to construct a sink in the pharmacy, he writes:

In the July CIRCULAR our friend M. G. S. is evidently up against it on the sink question. At least he wants information as to the "best" kind of a sink to be used in a pharmacy.

Unfortunately there is no official sink. The United States Pharmacopœia calmly steps from *sinapis nigra* to *sodii acetat* with no mention of *sinkum penstockana*—its properties, habitat, tests of purity, etc. And the National Formulary leaves the pharmacist in the same boat.

Now, it is obvious that there may be as many different kinds of sinks as there are permanent metallic elements in chemistry, varieties of tile in pottery, or suitable stone in mineralogy. From the glassmaker's standpoint the cast-iron sink is ideal. A good lusty iron sink, with the assistance of a new boy will, in a week, smash q. s. soda glassware to pay for the sink. Then there is the steel sink "galvanized"—a delusion and a snare! Good as long as the zinc coating lasts, which is about ten days of ordinary drug store usage. The porcelain sink is clean and attractive, but suggests a bath tub. The store "kid" may use it as such with the result of a contrb. neg. claim oy his parents against the druggist for drowning.

But what is the best sink? One made of platinum, of course. Have it made very heavy to prevent sneak thieves from carrying it off, or better still, arrange it so it can be disconnected at night and placed in the store safe. A good, well-made platinum sink will last a life time, and when finally worn out can be converted into city real estate, or used to lift the mortgage from the store.

In reply to our request for a brief disquisition on the philology of the word "penstockana," Mr. Fellows writes: "When doing laboratory work at college our class referred to water by two generic names, *aqua destillata*, and *aqua penstockana*, the latter term referring to Hudson River water in its natural state (H_2O plus). *Penstockana* is a scholarly (?) derivative from *penstock*, a flume, or pipe used to convey water." He added that maybe we had better blue-pencil it. Perhaps in this he was right, but as a new, fine, large-sounding and ear-satisfying word it seems to fill the bill so well that we haven't the heart to kill it.

Incompatibility of Salol and Monobromated Camphor.—W. A. E., Virginia, submits for criticism the following prescription, the ingredients of which, it is claimed by the prescriber, can be combined in a powder:

Phenacetin	12 grains.
Acetanilide	9 grains.
Salol	15 grains.
Citrated caffeine.....	6 grains.
Monobromated camphor.....	6 grains.
Strychnine sulphate.....	1/10 grain.

Mix, and make 6 capsules.

Without the addition of a considerable amount of powdered elm bark, or althea, or some other inert absorbent powder it is not possible to combine phenyl salicylate and monobromated camphor without liquefaction taking place. The several other coal-tar products present in the mixture under discussion, favor rather than inhibit the characteristic result of the admixture of these two substances.

After experiments with the prescription in question we cannot concur in the quoted opinion of the writer thereof.

Meat Preservatives.—H. F. H., New York, writes: "Kindly advise me through your CIRCULAR if you have a formula similar to 'freeze 'em pickle' for preserving meats, etc."

We have no knowledge of the particular formula in question, but in the CIRCULAR for July, 1906, page 254, appears a note on this subject, which we reproduce herewith entire:

Prof. Matthes and Dr. Müller (*Pharm. Centralh.*), have examined a number of the newer meat preserving salts and found them to have the following compositions:

Eminent is a sausage spice-salt mixture consisting of about 85 per cent. of table salt, 5 per cent. of sugar, 5 per cent. of saltpeter and 5 per cent. of spices (mainly pepper).

Nova preservative crystals for chopped meat is composed of technically pure sodium acetate.

Zeolith contains approximately 16.4 per cent. of water, 0.4 per cent. of sodium fluoride, 15 per cent. of dried sodium phosphate, 50 per cent. of sodium chloride and 17 per cent. of sodium acetate.

Es ist erreicht consists of table salt and sodium phosphate, with a little saltpeter.

Preserving salt, Heidrich is composed of sodium benzoate, table salt and a small quantity of saltpeter.

Preserving salt, Keppler has about the same composition.

Preserving salt, Zugl consists of sodium benzoate, sodium phosphate and sodium chloride, together with traces of saltpeter.

Brilliant preserving salt contains aluminum sulphate, sodium benzoate and sodium phosphate.

Cassalin consists of sugar, table salt, sodium phosphate, sodium benzoate and aluminum sulphate.

In the CIRCULAR for November, 1907, page 733, in answer to a query from Canada concerning *preservaline*, we said:

In the Yearbook of the Department of Agriculture for 1900, W. D. Bigelow, then assistant in charge of food investigations, division of chemistry, now sometime acting chief of the bureau, published a treatise on "The Use and Abuse of Food Preservatives," in which he had a good deal to say about the composition of the various preparations then on the market known under the general name *preservaline*.

In his article the author (speaking generally and not with particular reference to the preparation now under discussion), used the following language:

In using preservatives of unknown composition, reliable and well-meaning food manufacturers may unknowingly commit two wrongs: (1) They may add to their products a compound of markedly toxic properties; (2) they may violate the law. Dependence cannot be placed on the claims of dealers. Representations of wholesomeness are worthless, because they accompany every food preservative. The statement that a given preservative may be used according to directions without violating the provisions of any pure food law is always false. All claims of new discoveries and exceptional preserving power are without foundation. In this category should be placed those preservatives which by name, trade-mark and advertising matter are represented as having the same effect on food as ice, differing only in the temperature produced.

It should be noted that these remarks were made before the passage of the food and drugs act of June 30th, 1906, and therefore, also, before the enactment of the various State laws based on that act. The statutes are much more rigid now than they were in 1900. It is quite possible, too, that the composition of some of the proprietary preservatives has also undergone a change in the meantime.

Forming a portion of the food chemist's article is a list of a hundred or so preparations offered through the trade as food preservatives, with reports of analyses of these. Over two dozen kinds of *preservalines* are mentioned, all made by the same company. Each one of these was found to contain one or more of the following ingredients: borax, salt, saltpeter, boric acid, ammonium fluoride, salicylic acid, sodium benzoate, formaldehyde, sodium sulphite, and sodium sulphate. As formaldehyde is particularly dangerous when used in foods, it may be well here to point out and emphasize the fact that it was found to be present to the extent of 10 per cent. in "preservaline No. 2," and in "milk sweet"; while a smaller percentage was found in "M preservaline." Some infor-

mation as to the estimation in which borax and other borates are held as food preservatives is given on page 722 of this issue [that is the issue for November, 1907].

We are not very familiar with the pure food laws of Canada, but in "the States" such preparations as are here-in mentioned are very good things, if used indiscriminately in foodstuffs, to get a man into embarrassing complications with the courts.

Perhaps sodium benzoate is as little objectionable as any of the chemicals used in preserving syrups, jams, jellies, etc., but the old-fashioned and honest sugar and heat, with or without studied sterilization, we can unqualifiedly recommend.

It will be noted that especial reference is made in the foregoing to preparations so named as to suggest that they have an effect on food similar to that produced by ice.

Quinine Sulphate and Solution of Ammonium Acetate.—J. L. H., Virginia, writes that he put up the following prescription:

Quinine sulphate.....	112 grains.
Magnesium sulphate.....	2 drams.
Solution of ammonium acetate....	2 ounces.
Acetic acid.....	enough.
Camphor water.....	enough to make 4 ounces.

Mix; Direct: Two teaspoonfuls in water every four hours.

He asks: "Please note how you would dispense this; and why is the acetic acid added?"

When quinine sulphate and the solution of an acetate are mixed there is formed the slightly soluble quinine acetate. The amount in this instance, due to the large quantity of quinine-sulphate directed, is such as to cause the mixture to form a thick, pasty mass.

Quinine acetate, like the sulphate, is quite soluble in diluted solutions of mineral acids; acetic acid, however, does not assist so well in dissolving it—that evidently being the purpose of its presence—and to dissolve the quantity in this mixture so much is required that almost no camphor water is needed to make the directed volume.

Our querist does not say how he filled the prescription. We should not put it up without first calling the attention of the prescriber to the large quantity of acetic acid present in the finished product.

Polish for Brass.—G. A. E., Massachusetts.—Fourteen formulas for metal polishes—powders, pastes and liquids—appear in the CIRCULAR for October, 1908, page 470. One of them follows:

Prepared chalk.....	8 ounces.
Oil of turpentine.....	2 ounces.
Alcohol.....	1 ounce.
Ammonia water.....	2 drams.

Benzin and Acacia for Bronzing.—I. S., New York, asks how "to mix benzin and gum arabic for bronze liquids." We do not know. Can someone tell us? Is it ever done?

Validol.—S. A. R., Iowa.—In the CIRCULAR for October, 1905, page 352, appears the following note:

Validol is defined as valerianic acid menthyl ester or menthol valerianate, $C_{10}H_{18}O_2$, to which 30 per cent. of free menthol has been added. It occurs as a thick, colorless, clear liquid, of mild, pleasant odor, and cooling, slightly bitter taste. It is used as a nerve sedative, analgesic and carminative, in hysteria, gastralgia, seasickness, syncope, etc. Dose 10 to 20 drops, on sugar or in

capsules. Camphorated validol is a 10 per cent. solution of camphor in validol, used in debilitated conditions as a stimulant, and as a dental anodyne in toothache from carious teeth.

This note and some thousands of others of a similar nature on other new remedies, we collected and printed in a small book in 1906.

Validol is also described in the current issues of the dispensatories and in the American Medical Association's New and Nonofficial Remedies.

Anonymous Queries.—"Subscriber," New Jersey; and H. A. H., Massachusetts.—We do not answer anonymous queries, a standing notice to that effect appearing at the head of this department. This notice is repeated nearly every month, just as it is repeated here now, and occasionally we go into details and explain why the rule was made.

Blair's Gout and Rheumatic Pills.—H. R. L., New Jersey.—We do not know the composition of these pills. Many years ago the *New Idea* said that they were made of acetic extract of colchicum and extract of hyoscyamus. You will find a reference to this fact in the CIRCULAR for March, 1895, page 62.

Appeals to Readers.—Information is sought concerning the composition of the preparations listed below. We ask for such help as our readers can give:

Aubry Sisters' Complexion Paste.—R. W. B., Florida.

Frutina.—J. E. D., Quebec.

Fitch Hair Tonic.—F. J. K., Washington.

Cockle's Pills.—S. A. K., Pennsylvania.

Champion Jewelry Wash.—D. I. C., New Jersey.

Pustolene (a dental paste).—J. E., Pennsylvania.

Crème Mealys.—L. A. K., New York.

Mimeograph Ink.

Balsam copaiba.....	9 ounces.
Lamp black.....	3 ounces.
Indigo.....	5 drams.
Prussian blue.....	5 drams.
Indian red.....	6 drams.
Yellow soap, dried and powdered,	2 to 3 ounces.
Rub well together until a smooth, creamy paste results.	

Marking Paste for Laundry Use.

The following formula (*Neu. Erfind.*) is offered for a marking ink for laundry use:

Copper sulphate.....	2 parts.
Anilin hydrochloride.....	3 parts.
Dextrin.....	1 part.
Glycerin.....	enough to make a paste.
Mix well, and put up in tin boxes.	

To Remove Stains from Marble.

Soft soap.....	4 ounces.
Whiting.....	4 ounces.
Sodium carbonate.....	1 ounce.
Water.....	enough.

Make a thin paste, apply it on the soiled surface, and wash it off after twenty-four hours.

Georgia Board Questions.

Herewith are printed the questions used by the Georgia Board of Pharmacy at an examination held November 9th, 1908. Other sets of questions asked by this board in recent years appear in the CIRCULAR for June, 1904, page 125; February, 1906, page 60; and July, 1907, page 481.

In reprinting board questions we endeavor to follow closely the nomenclature, spelling, punctuation and capitalization of the originals, our object being to give to our readers, just as nearly as practicable, the questions as they were presented to the candidates.

Pharmacy.

C. D. Jordan, Examiner.

1. (a) How much Iodide of Potash in a four ounce saturated solution? (b) State quantity of water used in making the above solution.
2. (a) What official product was formerly known as Cresylic Acid? (b) It is separated by fractional distillation from what? (c) It is nearly always employed in combination with what?
3. (a) To what does Cinnamomum Zeylanicum owe its virtue? (b) Mention some of the other principals present. (c) What often causes the F. E. to gelatinize?
4. (a) What official drug is known as Spurred Rye? (b) What is best solvent for its active principals?
5. (a) Mention four official products derived from the class Mammalia. (b) The principal use of each. (c) Which of the new official products of the above class is used principally as a haemostatic.
6. (a) What are ptomaines, their source? (b) What relation do they bear to alkaloids?
7. (a) The monacetyl derivative of aniline is officially known as what? (b) Its medical application is similar with what?
8. (a) What percent of Ammonium Acetate does Spirits of Mindererus contain? (b) Into what official liquor does it enter? (c) In the manufacture of this product why should it not be alkaline?
9. (a) Aluminum is found in combination with what acid? (b) Mention two official salts of this metal. (c) Which is its most important salt?
10. What two official pills is soap used as the excipient?

Chemistry.

R. H. Land, Jr., Examiner.

1. Define the following Chemical terms, Atom, Molecule, Base, Acid?
2. What is the difference between Sulphuric Acid and Sulphuric Anhydride?
3. Why is Lead often an impurity in Sulphuric Acid?
4. Define a saturated solution of a Salt in water?
5. Describe the meaning of the following prefixes and give an example of a U. S. P. Chemical of each? Bi, Hypo, Pyro, Sub?
6. Does Ferric Hydroxide act as an antidote for Arsenic?
7. How is Ferric Hydroxide prepared?
8. Why must Granular Effervescent Salts or Powders be kept in well corked containers?
9. Why is it best not to use an iron spatula in making an ointment containing Tannic Acid?
10. Name a chemical antidote for the following, Chloral, Alkalies, Acids, Iodine?

Materia Medica.

S. E. Bayne, Examiner.

1. What Constitutes "underground organs" in plant drugs? (a) Give official example of each.
2. State the difference between Hops and Lupulin. (a) Describe appearance and give dose of each.
3. What are the constituents of Squill? (a) Which is the emetic principle?
4. What is Morphine-diacetic-ester? (a) It's dose? (b) The limit to the fluid ounce prescribed in the Georgia narcotic law.
5. What single Bacterial product is official? Two doses are given by the U. S. P.—State them. (b) Give dose of Extract Thyroid Glands.

6. Mention five alkaloidal drugs which the U. S. P. require to be assayed. (a) Give assay strength of each.

7. Turpentine—Give official definition and description. (a) What is the U. S. P. title of the distilled preparations of Turpentine? (b) Dose.

8. What three Metals produce the greatest number of official preparations. (a) Name the principle preparation of each, and give dose.

9. What is Adrenalin? (a) Its common preparation, and general use.

10. Give habitat of Gelsemium. (a) Active principle of Physostigma. (b) Common name for Frangula. (c) Botanical name of Leptandra. (d) Give an example of Hepatic Stimulant; Cardiac Sedative.

Prescriptions and Doses.

Herman C. Shuptrine, Examiner.

1. State how you would fill the following prescription, give the appearance of the finished product, what would you do with it, and, why?

R Pot. Chlor..... 3 iv.
Glycerine 3 ss.
Tr. Ferri Chlor..... 3 ss.
Aqua q. s..... 3 iv.
M. Sig. Use as gargle.

2. Criticise the following prescription:

R Sod. Thiosulphate..... 3 iv.
Sod. Chlor..... 3 ss.
Acid, Hydrochloric..... 3 i.
Aqua q. s..... 3 iv.
M. 3i. t. i. d.

3. How much Corrosive Sublimate is there in a teaspoonful of a 1-2000 solution? How much Water would you add to make it a 1-2500?

4. Give the Official Latin Titles of the following: (a) Easton's Syrup. (b) Carron Oil. (c) Oil of Sweet Birch. (d) Oil Cassia (Synthetic).

5. How many fluid ounces of Carbon Disulphide in 3½ pounds, specific gravity 1.256?

6. How many grains of Morphine in six fluid ounces of Laudanum, U. S. P.?

7. Give the doses of the following: (a) Tinct. Henbane. (b) Pilocarpine Hydrochloride. (c) Tinct. Strophanthus. (d) Homatropine.

8. (a) What is the difference in Scopalamine and Hyoscine? (b) Give the name most commonly employed for Physostigmine.

9. Give the contractions most generally used for the following: (a) Teaspoonful three times a day. (b) Give immediately. (c) Every two hours. (d) Strain.

10. Criticise and tell what you would do with the following prescription:

R Acid. Carbol..... 3 iss.
Aqua q. s..... 3 i.
M. Sig. Use as a mop.

Dispensing.

W. S. Elkin, Jr., Examiner.

Compound the following Prescriptions:

1. R Massa. Hydrarg.....
Ext. Colocyn. Co..... a a 1.00
Pulv. Ipecacua..... 0.12
M. ft. Pil No. 6.

• Sig.—One t. i. d. p. c.

Give amount of each ingredient in Apothecaries Weight.

2. R Oxid. Zinci.....
Bals. Tolu..... a. a. 2.00
Ungt. Petrolat..... Qs. 16.00
M. ft. Ungt.
Sig.—Apply Locally.

Give amount of each ingredient in Apothecaries Weight.

3. R Quininae. Sulph..... Drs. 1
Tr. Capsic..... Drs. 2
Acid Sulph. Aro..... Drs. 1
Glycerin Drs. 4
Aqua. Qs. oz. 4

M. ft. sol.

Sig.—Drs. 1 p. c. et. hs.

Give amount of each ingredient in Metric weights.

4. [Left blank on the printed sheet.—Editor THE DRUGGISTS CIRCULAR.]

Correspondence.

Short, timely articles upon subjects of interest to pharmacists are solicited for this department. In order to be in time for publication in the issue of a given month, they should be in the editor's hands on the fifteenth day of the month previous. Anonymous communications will not be published; but if the author expresses a wish to have his name withheld, this wish will be scrupulously regarded and his letter considered confidential.

"Where Do We Stand?"—A Rejoinder.

111 Avenue B, New York, July 9th, 1909.

To the Editor of THE DRUGGISTS CIRCULAR:

To my article printed in your July issue, pages 356 and 357, entitled "Where Do We Stand?" you saw fit to comment editorially. Permit me to make a few remarks in reply. And first of all let me correct an impression of yours regarding myself that seemed to have guided you in much of the subject matter printed in reference to my article. Nothing could be written in a more objective way where the personal element is entirely absent, than my communication. Yet it pleased you somehow to introduce a personal element, conveying the impression that I *must* be an "old apothecary," one of those eternal cranks that are perpetually finding fault, etc.

Beginning with your concealment of my name and signing instead "Old Apothecary" and ending with many references you make to the standpoint of an owner of a store "withering up and dying," it is evident that you mistook me for some foggy, some person who is more of a fossil than a live and striving thing. But nothing is further from the truth than this. I happen to be just a shade the other side of forty and am considered young, also am the owner of a store comparatively young and doing the average business of the neighborhood store.

And now as to your arguments. A very easy way of getting rid of an opponent's arguments is to call him a name. "Ah well, you are a democrat, a liberal," or "Say, you talk like a socialist." In your case you half settled the argument by calling me a "pessimistic philosopher," as if this settles anything one way or another. Again, you "fancy" that what I said about the drug business can be applied with equal force to the medical and law professions and to many lines of business. It is but too true. But does that make it any less true because I said it about the drug business? A truth is the more forcibly true the more it can be tested in different ways and directions. And had my topic been the medical profession I would surely not have failed to point out how the spirit of commercialism has pervaded there too and brought about conditions that are a serious menace not only to themselves but to everybody concerned. But I do most seriously question your belief that what I said "would have been just as true if it had been written about the drug business in any other period of its existence." Archives and books of statistics are not available in my stock in trade, but facts of common knowledge hardly need the verification of figures. The thoughtful will understand me without my going into specifications. Possibly I may throw some more light on the subject when I state that not being either a populist or a Rooseveltian republican, I am fully convinced that the era of trusts has come to stay until it runs its full development.

But before the Trust is replaced by anything else it will just as facetiously swallow up the retail drug business as it did the dry-goods business and many others.

Next you talk about natural law, intimating that "big fish were eating the little fish" before there was any big man to eat little man. Of course, and who denies that? Quite the contrary, the main issue of my article is to show that conditions in our business having steadily developed in the direction of decline; they must finally and inevitably lead into the Trust. And is not this a case of big fish eating small fish? I find that no attempt was made to meet me on this issue, although it actually is the burden of all my talk. Instead I am met with all kinds of trivialities and general platitudes to the effect that this or that individual has achieved a noted success, etc., and did I say or imply that such was not the case? But how does this fact, being the exceptional, alter the general drift and tendencies of things? The rich druggists in this city you can probably count on your fingers while the number of poor ones is legion. And your overlooking of the main issue is of a piece with your pleasantries about there having been people at all times and generations who have imagined things were going to the dogs.

Now then, all this is no news to me or anybody, and I cannot hail it as a discovery in sociology. Naturally, people at all times have complained and will continue to complain even after the millenium is established, and this is as it should be; it makes for progress. But you are entirely mistaken when you interpret my article as a complaint. Indeed, I am not complaining. History records that workmen have at various times attempted to destroy machinery because, forsooth, that machinery was intended to replace them in the factory. In their blind ignorance they could not see that they were fighting to stop the tide of the ocean. I am convinced that the drug business *in general* has been degenerating steadily not only as a profession but as a business as well, and that the Trust is coming to replace the mass of small stores. This I have tried to show, and as far as complaining is concerned I feel I would be in the position of those workmen trying to break up newly invented machinery.

As to your statistics purporting to prove that I was wrong in my assertion that the proportion of increase of population and increase of drug stores is that of 2 to 5, I claimed not accuracy of figures, although I am still right as far as a certain section of this city that I had in mind, is concerned. However, I will call to your mind a small omission in working out your figures, and it is this: almost each and every department store runs a drug department and it is well known such a department does the business of many small retail drug stores. Certain leading drug stores in this city are known to count their daily receipts into the thousands of dollars—could you have figured such as single stores? Or were they also factors twenty-five years ago that druggists grieved about? Of course you had nothing to say to one highly significant statement of mine and that is, that the cost of running business has probably increased 50 per cent., while profits have decreased 25 per cent. Now I will supplement this with the following. Under present conditions of cost and profit, to maintain himself properly and decently, the druggist of the average neighborhood store must

have a daily receipt of not less than \$25, while the store having a general sale of proprietary goods should take in about \$35 or \$40 daily. I ask, Is it not a fact that stores of such type are rather of the exceptional than the average kind? To the best of my knowledge—and in this many men of authority and experience will bear me out—the mass of stores in this city of Greater New York are struggling hard to make both ends meet and then do not always succeed.

Given an earnest desire not to delude oneself and an ability to put two and two together, one cannot help—so it seems to me at least—drawing those conclusions, whether cheerful or otherwise, that I already have indicated in my previous letter.

M. MAHLER.

How Is Business?

Across the Delaware, July 11th, 1909.

To the Editor of THE DRUGGISTS CIRCULAR:

I have been very much interested in the "lubricant" discussion in your journal. I would like to give you my experience in the drug business, and if you care to do so you may publish it, as I would be pleased to hear my brother pharmacists comments on it, also to know if they think that I have done ordinarily well or the reverse.

I am thirty years of age and until three years ago I was a drug clerk at all kinds of salaries up to \$100 per month, which was the most I ever received. Three years ago the first of July I bought this store without one cent of capital. I managed the store for three months for the owner before I bought it, as he was not a druggist and wanted to get out of the business.

I bought the store without taking an inventory, paying \$4,100, which I think was more than it would have invoiced. I gave bond to the owner to pay for the store, the conditions of the obligation being as follows: I was to (1) lift and turn over to the owner of the store certain notes held by a wholesale drug house amounting to \$769.72, with interest. (2) Assume the contract for and agree to pay the balance of \$200 on a soda fountain, with interest. (3) Endorse and pay at the rate of \$100 per month, with interest, a certain note for \$2,000, which was held by a bank and endorsed by the store owner. (4) After the \$2,000 note was paid in full with interest, to pay to the store owner \$100 per month, with interest, until the balance of the principal debt of \$4,100, with interest, was paid in full. This contract was entered into July 1st, 1906.

I went to work to see what I could do, and in one year after I bought, I tore out the old fixtures and put in an up-to-date set of mahogany fixtures at a cost of \$4,000.

To-day my store, stock and fixtures (on which latter I write off 10 per cent. for depreciation each year) invoices \$10,082.60, and I still owe \$900 of the original purchase price.

My cash sales have been as follows:

First year.....	\$12,353.55
Second year (panic year from October on)	16,896.75
Third year (panic year up to March) ..	17,981.45
My rent is \$50 per month; my heat and light, \$22	

per month. I keep three clerks, one I pay \$75 per month; one, \$35, and one \$25 (the two latter having the college privilege on alternate days in winter). I do not take a stipulated salary, but have taken out of the business for my own personal use cash as follows: First year, \$1,314.80; second year, \$1,358.90; third year, \$1,375.90. I carry \$9,000 insurance, which costs me \$125.

My store is in a manufacturing town of 10,000 population and has five drug stores, so you see I have some competition. I buy from traveling men and jobbing houses, and do not belong to any buying clubs.

I really do not know whether I have done well or not, so would be pleased to hear from my brother pharmacists as to what they think. IN DOUBT.

[While a full statement such as a professor of commercial pharmacy might require can not be compiled from the foregoing figures, to an ordinary man who knows whether he has money or not by being able or unable to take it in his hands and count it, these figures amount to something like this:

The "Doubter" has on his hands a stock (including fixtures) worth.....	\$10,082.60
He owes on this.....	900.00
Leaving him a clear interest worth.....	9,182.60
During three years he has drawn from the business.....	4,049.60
Beginning with nothing, in three years the "Doubter" has spent or saved.....	13,232.20
A salary of \$100 a month for three years is	3,600.00

So it seems that the "Doubter" has ac- cumulated over and above his best pre- vious salary, in three years.....	9,632.20
Which is at the yearly rate, in excess of his maximum salary, of.....	3,210.73
Or a net return per year of.....	4,410.73

Why does he doubt?—Editor THE DRUGGISTS CIRCULAR.]

Post-Graduate Courses in Business Methods.

Plattsburg, N. Y.

To the Editor of THE DRUGGISTS CIRCULAR:

I am just reading over again a short article in the June issue of the CIRCULAR, and I am glad to know that the opinions of your constituency is of such importance to you. But my own patrons' views are of importance to me.

I was impressed by an editorial suggestion not long since, which, it seems to me, might bear fruit. The idea was that arrangements should be made whereby several pharmacies especially adapted to the purpose should take graduates in pharmacy, and give them a post-graduate course of instruction and practice, business methods and store management being the end to be striven for.

This seems to be a very reasonable suggestion, and I should very much like to be one of those who might bring the matter to the consideration of organized drug interests. O. T. LARKIN

A Clerk's Advice to Clerks and Proprietors.

Stoneham, Mass., July 12th, 1909.

To the Editor of THE DRUGGISTS CIRCULAR:

I know you are interested in drug clerks and that clerks are interested in every thing that tends to better their condition, for I am a drug clerk myself and am continually looking for means and opportunities to better my condition, and I am very sure that my desires and aspirations are not materially different from those of the great army of clerks throughout the length and breadth of the land, but perhaps from a wider experience than many I may be able to write something of interest not only to clerks but to proprietors as well.

I have spent nearly twenty years of my life in a drug store, during which time I have officiated in every capacity from janitor to proprietor employing three clerks, a man to make ice cream and soda syrups, and a janitor. At the same time I held the position of cashier for a branch office of a trust company doing business through the Boston Clearing House and did considerable notary public work. My health failed and I had to resort to out-of-door-life for a while. After three years' retirement from active business life I had a desire to again enter the drug business and so secured a position as clerk in a progressive up-to-date pharmacy with a Ph. G. as proprietor and am now employed combating disease, making the sick man more comfortable and happy, so far as possible, and I trust pleasing my employer.

Integrity, *vim* and ABILITY are three stepping stones that will land any drug clerk in a position as manager or a proprietorship within a very few years, from five to ten, depending on ability. I was manager of a store even before I was registered and am satisfied there are thousands who possess as much or more ability and whose opportunities are as good or better. Let me say right here that while there are plenty of drug clerks there is a dearth of really good ones in the market because proprietors who get really good clerks are loath to let them go and will offer as good advantages as can be secured elsewhere. Proprietors are willing to pay good salaries if clerks can make good.

To clerks I would say: Study your work.

Learn to do the most in the least time possible.

Whatever you do, do thoroughly and well.

Be neat, careful, exact, and systematic.

Study your store, make it as neat and attractive as possible and rest assured you will not displease your employer.

If you officiate in the capacity of salesman, study your customers; be prompt, attentive, and polite. Remember that a satisfied customer is the best advertisement possible for the store, a sure means of holding patronage and gaining new, a stepping stone to more salary.

Be progressive and well informed on topics pertaining to your profession.

Remember that slang, profanity, and ungentlemanly acts are reprehensible at all times and places, and especially so in a drug store where there are often ladies and gentlemen of refinement to whom such language and acts are obnoxious.

Excel in whatever you do and you will surely win the goal of your ambition.

Now a word to proprietors: Use judgment and discretion in your selection of help. State definitely

their duties and hours, what you expect and require of them, then "try them out," and if they prove competent you can safely dismiss the care of those duties you require of them to their charge, otherwise the best thing to do is to discharge such help and secure those whom you can trust to do their duties without watching, for no proprietor can with justice to himself and his profession be bothered with the detail of all departments of the modern pharmacy.

Do not hesitate to compliment good work or to reprimand carelessness and neglect of duty.

Pay living wages and treat your clerks humanely.

Organize your working force and arrange the hours so as to obtain the best results possible for money expended without over-working yourself or clerks.

Make the conditions of your clerks as pleasant and agreeable as possible.

Be frank and honest with your help, and your help will be frank and honest with you if they are worthy of your hire, otherwise something is wrong. Find the trouble and remove it.

I am "chock full" of "business hints" which I will gladly impart to any one interested enough to address me.

Very truly yours, for better conditions of clerks, proprietors, and the profession in general,

E. J. WHEELER.

Thinks Drug Clerks Should Organize.

Beverly, Mass., July 13th, 1909.

To the Editor of THE DRUGGISTS CIRCULAR:

I have just finished reading an item in the CIRCULAR for July, page 382, entitled "British Assistants Organize," and it leads me to write what follows:

Why do not registered drug clerks *here* (and registered assistants) unite in some such manner for their mutual benefit? It seems to me that there must be something wrong when plasterers are able to get 60 cents per hour (and then wish for more), while plumbers, masons, carpenters, machinists, car conductors, etc., etc., without number, get at least as much as the average registered drug clerk, and usually more. It is a poor plumber or mason who can not average \$20 per week the year 'round, and yet the pharmacist, a professional or partly professional man, works for \$15 to \$18, is pleased to get \$20, jubilant at \$25 or \$28, and would faint at the mention of \$35. It would take more than \$35 to make a good plumber faint.

It is probably true that the drug clerk spends more money and much more study to qualify for his vocation, and besides, he must pass a State board of registration, than the doctor and the lawyer, but yet he gets a much smaller remuneration than any good workman in the ordinary trades. Moreover, he works more hours per week and more holidays per year and with closer confinement than workmen in any other vocation.

I believe that organization would remedy this state of affairs, help do away with "liquor" drug stores and the cut-price evil. The profits lost by cutting prices (intentionally or because of competition) *should* be going to pay a higher wage to deserving drug clerks. It is just as though the public were getting part of the clerk's wages.

I am neither a registered clerk nor a registered assistant (although I hope to be the first, sometime), so

this state of affairs may seem to be: "none of my funeral" anyway, but I would like to see this letter be the means of leading some clerk to start an organization of some sort.

Do not think I am a croaker or a pessimist, for I make it a rule to be satisfied as far as possible with things as they are, and I am writing this communication because I think it might do some good for druggists and their clerks especially.

WELL MEANER.

[There are various drug clerks' organizations throughout the country. Every now and then such an organization springs up, seems to flourish for a while, or as long as the initial enthusiasm keeps up, and then dies of inanition. We believe that some of these organizations are affiliated with labor unions, but as this is so obviously a *mésalliance* the idea does not seem to have favorably impressed a large number of clerks.

Some time ago we ran across a tabulated statement, said to have been prepared by James Phillips, of Chicago, which is of interest in the present connection; we have made no attempt to verify the figures, but present them as found:

Average of Weekly Wages Paid in Thirteen Different Trades in the United States and Europe:

Trade.	U. S.	Great Britain.	France.	Germany.	Belgium.
Blacksmiths ...	\$16.52	\$9.74	\$9.12	\$6.92	
Boilermakers ..	15.95	9.63	8.14	6.29	\$4.21
Bricklayers ...	26.26	9.89	6.36	6.37	4.05
Carpenters	17.79	10.03	7.64	6.44	3.52
Compositors ...	22.33	8.97	6.51	7.05	4.77
Hod Carriers...	13.74	6.00	4.63	4.07	2.07
Iron Moulders..	17.30	10.18	7.46	6.50	3.94
Laborers	9.38	5.70	5.40	4.46	3.07
Machinists	15.15	9.39	7.42	7.33	
Painters	16.90	8.69	6.14	5.85	3.26
Plumbers	21.70	9.93	7.35	5.62	3.84
Stonecutters ...	20.70	9.77	7.09	5.76	3.35
Stonemasons ...	22.89	10.39	7.24	6.64	4.22
Total	\$236.61	\$118.31	\$90.50	\$79.30	\$40.30
Average	\$18.20	\$9.10	\$6.96	\$6.10	\$3.66

In other words, in the United States for every one dollar a man earns in the thirteen trades, he earns 50 cents in Great Britain, 38 cents in France, 34 cents in Germany, 20 cents in Belgium. Taking the four European countries and averaging them, for every one dollar the American workman earns, the European workman earns 36 cents.

Editor THE DRUGGISTS CIRCULAR.]

A Short Catechism.

Up Broadway, July 14th, 1909.

To the Editor of THE DRUGGISTS CIRCULAR:

The question is, Has pharmacy gone to the dogs?

No! It has gone plumb to a place whose name it would not be polite to mention.

Is the writer a pessimist? No! He is an optimist in every drop of the blood in his body. He just wants prosperity to come to this land once more.

Can pharmacy be made to pay? Yes, *perverted* pharmacy can be made to pay.

What is it otherwise known as? Commercialism gone rampant.

What is commercialism? Alert, cold-blooded, eternal, persistent, consistent scheming and watchfulness; an ever winking at the ways that are devious and unscrupulous, grasping every opportunity and failing in none; an ever keeping in mind, Win, no matter how, *but win*.

What is legitimate pharmacy? It is adhering to the most scrupulous lines of honesty and integrity, wavering and deviating not one iota from all that is absolutely accurate, straightforward and noble, ever keeping in mind, "Whatsoever ye would that men should do to you, do ye even so to them."

Can legitimate pharmacy compete with commercialism? It has just as much chance as the old one-horse shay has against the modern flying machine.

Then how can pharmacy win? By adopting this new motto, *Avaunt, legitimate pharmacy; hail the advent of commercialism. "In hoc signo vincimus."*

S. M. F.

[After all, wasn't the old one-horse shay surer and safer than the modern flying machine?—Editor THE DRUGGISTS CIRCULAR.]

Why Confine the Use of Red Cross Stamps to the Christmas Season?

United States Government Hospital for the Insane.

Washington, D. C., July 1st, 1909.

To the Editor of THE DRUGGISTS CIRCULAR:

Will you allow me to say a few words, referring to the excellent work that has been done during the past ten years, by the American Red Cross Associations, at home and abroad, and to the use of the official Red Cross stamp?

Why would it not be advisable to use the official Red Cross stamp every day in the year, and thereby help the work that must be done every day and every night by those patient and ever-faithful trained nurses, and members of the "Old Guard," civil and military members of the medical and hospital corps?

JOSEPH MCKEE.

Still Harping on the "Lubricator."

"I have been a subscriber for about twenty-five years," writes W. E. Cramer, of this city, "and have never found anything in the CIRCULAR to take exception to until the account of that wonderful druggist. All I have to say is, if he can produce any such result in my store he can have \$6,000 a year salary; better hours (so he can see the sun); and put his money out at interest."

Chatterton's Compound.

An insulating covering for telegraph wires, known as Chatterton's compound, or *Willoughby Smith's compound*, was originally the subject of a patent. According to the *Chemist and Druggist* it has the following formula:

Stockholm tar..... 1 part.
Rosin 1 part.
Gutta-percha 3 parts.

Melt together the tar and rosin and add the gutta-percha.

Everybody advocates sobriety. The drinking fellow who does more business and gets better pay than the total abstainer succeeds in spite of his bad habit, not because of it. Maybe the abstainer does not amount to much at best, and if he were a drinking man his handicap might throw him out of a job entirely.

Notices of Books Received.

PRINCIPLES OF PHARMACY. By Henry V. Army, Ph. G., Ph. D.; Octavo; cloth; 1,175 pages; 246 illustrations. \$5, net. Philadelphia and London: W. B. Saunders Company. 1909.

Departing in several instances from the scheme of the existing books on pharmacy, Prof. Army has sought to improve upon their method of explaining pharmaceutical standards, preparations and manipulations. This latest "pharmacy" is divided into seven parts: Part I opens with an introduction to pharmacopœias and pharmacal physics, and deals with pharmaceutical processes. The arithmetic of pharmacy, a phase of the science in which some students—and others—are said to be woefully deficient, receives particular treatment. Part II deals with pharmaceutical preparations, galenic not chemical arranged in type groups. Part III contains an instructive chapter on the theories of chemistry, and treats of inorganic pharmaceutical chemistry and the inorganic chemical preparations. Chemical arithmetic is discussed lucidly at some length. Part IV is devoted to organic pharmaceutical chemistry, and opens with an introduction to the theory of that division of chemical science. In part V pharmaceutical assaying and chemical testing are discussed. The official tests and assay processes are grouped in a systematic arrangement somewhat similar to that suggested for adoption in the Pharmacopœia. This feature adds much to the convenience and usefulness of this volume. Part VI is devoted to the discussion of the prescription, characteristic prescriptions being given in fac-simile and dispensing being treated at length. The final division, part VII, gives the scheme of laboratory work which the author has found conducive to the best results in his instruction of pharmacal students. The exercises in equation writing, stoichiometry and chemical arithmetic are particularly valuable.

Pharmacy has been well favored with authors, and the arrival of a new book is quite likely to be greeted with the biblical quotation anent the endless making of books, but the nature of the addition herein noted is such that doubtless a hearty welcome awaits it. The publishers have given the volume a plain, neat dress well in keeping with the substantial character of its contents.

THE HARMFUL EFFECTS OF ACETANILID, ANTIPYRIN, AND PHENACETIN. By L. F. Kebler, Ph. C., M. D., with the Collaboration of Drs. F. P. Morgan and Philip Rupp. Octavo; paper; 85 pages. Bulletin No. 126, Bureau of Chemistry, U. S. Department of Agriculture. Washington: Government Printing Office. 1909.

Many and varied have been the opinions expressed during the past few years relative to the harmfulness or otherwise of the widely used but not well known coal-tar analgesics. Statistics have confronted statistics, and facts (?) have contradicted facts (?); arrayed against Adams' statements in the "Great American Fraud" were the Ohmann-Dumesnil disparagements of St. Louis origin; and in the celebrated "brane-fude" case the expert witnesses for the two sides agreed as to the safe dose of acetanilide about as nearly as expert witnesses usually do. Statistics are valueless unless they have been collected honestly and intelligently, and their significance properly

deduced. The federal government has collected statistics on the question of the harmfulness or otherwise of the three coal-tar remedies named, and seemingly has presented them without fear or favor, bias or prejudice. The result is decidedly unfavorable to those who for profit advocate the use of the ordinary headache powders. Sixty of the pages of the book are devoted to abstracts of the literature of poisoning by coal-tar analgesics, covering a period of twenty-five years.

The message of this little book should reach every pharmacist in the country.

ESSAYS BIOGRAPHICAL AND CHEMICAL. By Sir William Ramsay, K. C. B. Octavo; cloth, gilt top; VII + 247 pages. \$2.50, net. New York: E. P. Dutton & Co. 1909.

It has been said that the biographies of those who have made history are the best histories; at least they are the most readable. Hence one would expect to find in the biographies of eminent scientists written by one of equal eminence, all that is best in the progress of the sciences; and in this instance there is no disappointment. In the sketches of Boyle, Cavendish, Davy, Graham, Black, Kelvin and Berthelot, Sir William has given to scientific literature rather full and very interesting accounts of the accomplishments of these men and of their contemporaries, and in a manner that makes pleasant reading.

None the less interesting and instructive are his scientific essays on the Becquerel rays, radium, the periodic arrangement, electricity, and the aurora borealis. And the chapters on the early days of chemistry and on how discoveries are made are replete with good things for the student of science.

THE URINE AND CLINICAL CHEMISTRY OF THE GASTRIC CONTENTS, THE COMMON POISONS, AND MILK. By J. W. Holland, M. D. Eighth Edition, revised and enlarged. Duodecimo; cloth; x + 160 pages (printed on one side); illustrated \$1, net. Philadelphia: P. Blakiston's Son & Co. 1908.

Much has been written of late in the way of advice to pharmacists that should arouse an interest in the practicability of clinical chemistry in the pharmacy. Doubtless many have been led to consider this matter. To these an acquaintance with Holland's work on clinical analysis will be useful. This latest edition treats fully many of the more widely used methods of examining qualitatively and quantitatively morbid urine and the gastric contents, of detecting common poisons, and the study of normal milk. The various tests are clearly stated, and the accompanying directions and illustrations are quite comprehensive.

The shape of the volume will be appreciated by workers in drug-store laboratories. To these also will be apparent the utility of the blank pages.

THE "WILL-O-THE-WISP," a Chemical Narrative. By V. von Unruh. Twenty-four mo; paper; 18 pages; 25 cents. New York: The Author. 1909. A readable monologue by "Methane" mostly about some of "her" relations, or descendants, in the hydrocarbon family, told in non-technical language.

Somebody once said to a chronic "groucher": "The world is not against you; it is too busy."

Investigating Radam's Microbe Killer.

United States District Attorney D. W. Baker has filed a libel in the supreme court of the District of Columbia under the federal food and drugs act, praying for the condemnation of twelve cases of Radam's microbe killer recently seized in the office of Dean, Swift & Co., a firm of patent attorneys who have been engaged in selling the preparation in question at retail. No defense having been made within the prescribed time, the decree of the court will issue soon.

The action of the district attorney in this case is based upon complaints made by the bureau of chemistry of the department of agriculture by which the preparation has been analyzed. The government's contentions with respect to the alleged misbranding of the goods seized are set forth in the libel in part as follows:

Your libellant further represents that the said twelve cases, more or less, of said liquor or drugs, and each and every bottle thereof contained in said cases, are illegally held within the jurisdiction of this honorable court, and are liable to condemnation, and confiscable as provided by the said act of congress approved June 30th, 1906, for the reasons following:

In that the said liquor or drug is misbranded within the meaning of the said food and drugs act approved June 30th, 1906, for the reason that each and every bottle thereof is labeled and is being sold by the said firm of Dean, Swift & Co. as a drug, and the packages and labels bear certain statements regarding the said drug which are exaggerated, false and misleading, and that among the exaggerated, false and misleading statements are the following, that is to say: "It" (referring to the said Radam's microbe killer) "is a positive and certain cure for all diseases and is guaranteed to be perfectly harmless. It will effect a cure in every instance if given a fair trial"; and the further statement: "Cures by removing the cause—microbes"; and the further statement: "Microbe Killer is perfectly harmless and can be taken in any quantity without danger"; and the further label, and legend blown in the bottle, as follows: "Cures all diseases"; referring in each and every case to the said Radam's microbe killer; and that there is certain advertising matter accompanying the unit package, said advertising matter containing false and misleading statements, that is to say: "Radam's microbe killer is the only known principle that will destroy the microbes in the blood without injury to the system. While known scarcely twenty years, millions of people already testify to its wondrous curative energy. By removing the one cause it cures disease"; and further in said advertising matter a large number of diseased conditions are enumerated in which Radam's microbe killer is represented as a cure, that is to say anemia, asthma, blood poisoning, cancer, consumption, diabetes, diphtheria, la grippe, malaria, yellow fever, paralysis, pneumonia, whooping-cough, and other diseases.

These statements and all of them are exaggerated, false and misleading in this, that the said drug or liquor is not a cure for all diseases, and does not remove the cause by killing the microbes of the several diseases named or others named in said advertising matter, and are further exaggerated, false and misleading in that the product cannot be used in its present form to kill the microbes of the several diseases herein referred to; and that these statements heretofore enumerated and all of them, regarding said liquor or drug, are exaggerated, false and misleading within the meaning of the said act of congress approved June 30th, 1906.

Your libellant further represents that all the matters above set forth are true; that the said twelve cases, more or less, of said liquor or drug, and each and every bottle contained therein, have been transported from the city of New York, State of New York, to the District of Columbia, having been consigned by The William Radam Microbe Killer Company, a body corporate, of New York city, to Dean Swift, in the said city of Washington, District of Columbia, on, to wit, the twenty-eighth day of May, 1909, and on other days which are not known at this present time to your libellant; and the said cases and bottles contained therein now remain unsold, and the same are now offered for sale and are being sold in the said District of Columbia by the said Dean Swift.

And your libellant further shows that there now remain unsold and in original unbroken packages certain cases, to wit, twelve cases, more or less, of Radam's microbe killer consigned as aforesaid, in the premises aforesaid, and which are now held by the said Dean Swift.

No information is available as to whether the department of agriculture will institute proceedings against the manufacturers of this preparation. No defense having been set up by the parties in whose possession the goods were seized in Washington, no opportunity will be afforded for the trial of the case on its merits.

Mme. Yale's Preparations Misbranded.

On or about June 30th, 1908, an inspector of the department of agriculture found in the store of S. Kann Sons & Co., of Washington, D. C., a quantity of drug preparations which had been shipped to the said S. Kann Sons & Co., from New York, N. Y., on June 26th by Maude Yale Bishop Wilson. The consignment comprised seven distinct preparations: Fifteen dozen packages of "Madame Yale's skin food," eight dozen packages of "Madame Yale's fruitura, woman's tonic," two dozen large-size and six dozen small-size "Mme. Yale's fertilizer tablets," twenty-four dozen

small-size and twelve large-size packages of "Mme. Yale's excelsior hair tonic, the great hair grower," three dozen packages of "Mme. Yale's excelsior complexion bleach," twelve dozen small-size and two dozen large-size packages of "Mme. Yale's antiseptic," and one dozen packages of "Mme. Yale's blush of youth," on the labels of all of which were statements which in the opinion of the United States district attorney constituted misbranding under the federal food and drugs act (see the CIRCULAR for August, 1908, page 370); and he began libel proceedings for the seizure and condemnation of the preparations.

Samples of the several preparations were obtained by the department of agriculture and subjected to analyses in the bureau of chemistry. The analysis of the preparation labeled "Mme. Yale's excelsior skin food" disclosed that "it consisted of 76.5 per cent. of vaseline, which was mixed with fixed oil or fat and zinc oxide, colored with a pink dye, and perfumed." The analysis of the preparation labeled "Mme. Yale's excelsior fruitura" disclosed that "it consisted of 76.97 per cent. of volatile matter (largely water, with 16.66 per cent. of alcohol by volume), 29.71 per cent. of sugar, and small quantities of plant drugs." The analysis of the preparation labeled "Mme. Yale's fertilizer tablets" disclosed that the tablets "were very largely composed of charcoal, compounded with potassium bitartrate and sugar." The analysis of the preparation labeled "Mme. Yale's excelsior hair tonic" disclosed that "it consisted of 15.56 per cent. of alcohol by weight, 82 per cent. of water, and small amounts of glycerin, perfumed with bergamot oil." The analysis of the preparation labeled "Mme. Yale's excelsior complexion bleach" disclosed that "it was mainly a saturated solution of borax in orange flower water." The analysis of the preparation labeled "Mme. Yale's antiseptic" disclosed that "it consisted of 97.6 per cent. of volatile matter (16.96 per cent. of alcohol by weight, 4 per cent. of formaldehyde, and water), 2.37 per cent. of boric acid, and aromatics." The analysis of the preparation labeled "Mme. Yale's blush of youth" disclosed that "it consisted of 56.15 per cent. of volatile matter (6.30 per cent. of alcohol by weight and 49.85 per cent. of water colored with a coal tar dye and perfumed), and about 43.85 per cent. of glycerin."

The statements on the labels were so at variance with the results of the analyses, that at the final hearing, June 9th, 1909, Justice Anderson in the supreme court of the District of Columbia declared the articles to be misbranded, and ordered the claimant (Mme. Yale) to pay the costs of the proceedings, permitting her to retain the libeled preparations if she filed a bond for \$500, conditioning that the preparations would not be disposed of contrary to the food and drugs act.

To Draft a Model Food Law.

E. F. Ladd, of Fargo, N. D., has issued the following call for a conference of all interested parties with the committee named therein, of which he is chairman:

There will be a meeting August 23d, of the committee appointed by the Association of State and National Food and Dairy Departments, to draft a model food bill. This meeting will be held at Denver, Col., in connection with the meeting of the association, and manufacturers interested will be given an opportunity to appear before the committee and make any statement or suggestion with regard to the provisions of the proposed model food bill.

We ask that all statements and arguments be submitted in typewritten form and, if possible, that the same be submitted to a member of the committee before the meeting at Denver, in order that the committee may have an opportunity to consider the suggestions. The time will be limited to five minutes for each speaker who appears before the committee.

Denver's Anti-Narcotic Ordinance.

The city council of Denver, Col., recently passed an ordinance designed to restrict the sale of narcotic and poisonous drugs, the principal clause reading as follows:

It shall be unlawful for any apothecary, druggist, or pharmacist, or any employee thereof, or any other person whatsoever, to sell, barter, exchange, give away, dispose of, or deliver to any persons within the city any morphine, strychnine, laudanum, opium, cocaine or carbolic acid, or any extract or product thereof, except upon the written prescription or order of a duly licensed physician, as provided in this chapter, and except upon the day or date of such prescription or order, and there shall be, for each such sale, barter, exchange, gift, disposition or delivery, a special and distinct order or prescription in each and every instance.

A penalty of from \$10 to \$100 attaches to the violation of the ordinance.

DRUG STORE ADVERTISING

By M. P. Gould, of New York

In this department some of the fundamentals of successful drug store advertising will be expounded each month. The aim is to correct errors of advertising and establish the most profitable and advisable methods of building up retail drug trade by means of the powerful influence of advertising.

"Reiteration."

The editor of THE DRUGGISTS CIRCULAR sent me a short time ago, a very much appreciated bouquet in the form of a letter saying that it was a constant surprise to him that a person could write as many articles on one subject as I have written during the last eleven years for the CIRCULAR, and still make each article so varied and interesting.

Thinking that possibly readers of THE DRUGGISTS CIRCULAR may be interested in knowing how it is done, I am going to tell just how I write this present article. By following the story through, it will seem that all of my writings are developed from experience taken from every day events.

For example, this morning I received by mail a little house organ in the shape of a very small vest-pocket booklet. As I was glancing through it I noticed a paragraph about "Reiteration." The statement was made that "Reiteration is an enormously important factor in advertising. Any business that has not reached a stage of development by which it has a well settled policy that benefits both the house and the customers, cannot stand publicity. This policy once settled, should be maintained. Hence reiteration necessarily becomes fundamental."

My experience has taught me that reiteration is one of the most valuable things in advertising. The advertiser who issues one great big advertisement, and then doesn't advertise again for quite a while, is not nearly so apt to succeed as is the man who puts out a small advertisement repeatedly with new copy. He is the man most liable to get the largest returns for his advertising.

Consequently when I read in this house organ that "Reiteration is fundamental and enormously important," I have more respect for the

firm which has made that statement.

I put the little book down and began to think about it, and I very shortly came to the conclusion that that would be a good topic for an article in THE DRUGGISTS CIRCULAR.

I then took down from my desk Chapman's, The Law of Advertising and Sales, Vol. II. In running through the index I noticed one chapter headed, "The Price of Success." Something told me that repetition had a great deal to do with the "Price of Success," and inasmuch as Mr. Chapman had a good reputation, he probably would have something to say in this chapter about repetition. The chapter begins like this:

"Josh Billings said: 'Reputashun iz a good deal like a bon-fire. You hev got tew keep pilein' on the shavings; if yew don't the flame will soon sub-dew.'"

Commenting upon this assertion, Mr. Chapman says:

"And it is no more foolish for a farmer to plant seed in the morning, and dig it up at night, before it has a chance to grow, than for an advertiser to abandon a plan of campaign with all its incidents of distribution, copy, mediums, etc., if it does not develop satisfactory returns at once."

Later in this chapter, I find this kind of talk, credited to an advertiser: "If I want to get well acquainted with a man to whom I have been introduced, I speak to him every time I meet him. If I spoke to him but once and then passed him by without recognition the next time I saw him, and continued to pass him without speaking, or, perhaps, spoke to him two or three times a year, we couldn't get to know each other very well. That's the way I look at the advertising business. When I want the buyers of a certain territory to

get so familiar with me that they will think of me whenever they are in need of goods in my line, I want to speak to them in every issue of their favorite publication."

Near the close of this chapter, we find the following expressions:

"But let no prospective advertiser be lulled by the anticipation that the

Beauty and Health

There's beauty and health through perfect skin protection and care, in the use of our Complexion Lotions and Powders. Summer sun-tan, blemish and freckles are prevented; the skin is given a youthful blush and the pores kept healthy. Let us suggest the proper toilet helps for now—to use at home or abroad, at seashore or in the mountains.

(Name and Address)

public will immediately respond to his claims for recognition, because that is not the natural law of growth.

"At Santa Barbara nature gives us grapes as luscious as one would wish to taste, but the vines that bear them have been growing for 400 years. So, profits in advertising that are now being enjoyed by well-known advertisers, have developed slowly. Working and waiting, seeing one fortune slip away to win another—this is the price of success in advertising and sales that develops good-will."

Right here my feeling began to indicate that reiteration might be a very good thing but that there could easily be a screw loose somewhere if reiteration were the prime consideration.

In turning over just what ought to be coupled with reiteration, I came across an article in the magazine called *Advertising and Selling*. This is the remark:

"A talking point which might be of great value in one proposition may be valueless—an absolute damage even—in another. So much depends upon the different factors which go to make up a proposition, that it is impossible to determine always whether a talking point evolved by means of much study and discussion will 'pull.' Indeed there is a great deal of similarity between a talking point

BE WELL

During the Hot Days

Exercise a care against sickness during the hot weather. Your doctor will advise you about diet and drink, and guard you against sudden illness. If he orders medicine remember to

Bring Your Prescriptions HERE FOR RESULTS

We Sell Everything Any Drug Store Sells

Everything here is of select quality, handled and protected with care, offered to you perfect and worthy, and served to you to your satisfaction. Do your drug store trading here—insist on it—be satisfied, save time, worry and money.

and a play; no one can tell whether the result of presentation will be fame or failure."

That gave me my idea. An advertiser might reiterate the wrong thing so often and so continuously, that he would ruin his business. While I was thinking over this problem, a druggist in the office remarked that my article

the experienced national advertiser, "I want my advertisement to be in every one of those publications, so that every member of the family will read my ad, and no matter what publication is picked up, my ad will be seen until no one of the family can by any chance, get away from it. Consequently, if the mother doesn't happen to

SODA

Superb, dainty and refreshing soda drinks made perfectly and purely

and served expertly to satisfy thirsty throat or jade'd palate—the kind that makes every one come back for more. All plain and ice-cream combinations and fancy concoits.

CANDY

Mountains of cream surrounded by heavy,

rich chocolate; some nut, fruit, cream and glace centers. All luscious, dainty, appealing and pleasing confections. Also many mixed combinations and bonbons.

CIGARS

The most satisfactory smokes possible

to produce. Every size, shape and flavor—correctly and cleanly made from choice-grown tobaccos. Particular and fastidious smokers find here a satisfaction not to be overlooked.

in the July CIRCULAR hit the nail right on the head. I asked him what particular part of it he was thinking of, and he said that part where I explained that each store ought to find the right thing to advertise—that which would bring trade to one store, might not bring it to another. To use his words, "That is the real crux of the whole advertising business."

These two things, then are the basis of my article this month. After it has been determined what is the best thing to say about the store—the best department to advertise, the best line of talk to use, the best points to emphasize—then the next thing to do is to keep reiterating those points in the most interesting manner, until the whole community knows the store by those points.

There is a great question, especially among beginners, as to duplication in the use of advertising mediums. A few years ago some advertising men gained quite a little notoriety by attempting to pick out a list of magazines which would least duplicate each other, and then to make a specialty of pushing those magazines, claiming that a national advertiser could cover the whole country by using that non-duplicating list.

The theory promulgated by these men had no more permanent value than to encourage advertisers to think the problem out. The result is that now most good advertisers know that duplication is a very valuable thing—in fact it is simply another way of reiterating. An advertiser will say: "If the man in the house takes *Success Magazine*, and the woman takes the *Ladies' Home Journal*, and the boy takes the *Youth's Companion*, and *Everybody's Magazine* is picked up by the different members of the family; if *Life* is read by the college girl, and the *Theatre Magazine* comes to the house to keep the members posted as to the good plays, and the *Christian Herald* is taken because the family is religious to a degree, and if one member of the family is interested in automobiles and therefore reads *Motor*, and another member is interested in sailing, and therefore reads the *Rudder*—then," says

be interested in my ad in the *Ladies' Home Journal*, she will be in the *Theatre* or the *Christian Herald*. So with the other members." That is duplication. The idea is dying that an advertiser can reach and convince a whole family by using just one magazine. Some advertisers are so inexperienced and silly as to think that they can convince people by using just one big advertisement in one magazine. That kind of advertisers don't last very long. They soon cease advertising.

Reiteration is duplication.

If the lady at her breakfast table can read an advertisement in the morning paper regarding a particular store; if then, when the postman comes, he brings a good letter or card or announcement, from the proprietor to her, and she reads that; if as she starts out the door she finds in the front hall a circular from the store; if when she gets on the street car, she sees one of the store's cards; if as she is riding toward the shopping district she sees a billboard with an advertisement of the store on it; and if, as she comes near the store, she sees a good sign identifying it—then that is the kind of duplication which brings a large return from advertising, provided the advertising covers the right "selling points."

I have known a number of advertisers to adopt an advertising slogan—some catch phrase,—starting out with a great gusto, to use that slogan. After two or three months, not seeing many returns from it, they have gotten tired of it and dropped it.

Right here comes in a point that must be remembered. There is the story of the two little boys who had a dispute. Johnny made a certain statement. Sammy denied it. Johnny said he knew it was so. Sammy said he knew it was not so. So Johnny said: "Well, my mother said it is so, and if she says it is so, it is so, whether it is so or not."

Now that kind of doctrine doesn't go in advertising. Simply saying a thing is so doesn't make it so in the public mind. There is so much advertising which is not wholly

QUICK DELIVERY

A feature of our business is the quick, safe and satisfactory delivery service. You can order by mail or phone your orders with the knowledge that we select your goods with the same care as would attend a personal visit, and deliver to you "rush" at no extra cost.

Bring, Send or Telephone All Your Orders

No matter what you want from any drug store, we have it. Insist on trading here and enjoy the free privileges of delivery and the economy of highest-grade goods at fairest cost. Something you want now—drugs, toilet goods, rubber goods, sickroom, bathroom or nursery needs?

in accordance with what the reader thinks are the exact facts, that most advertising is taken "with a grain of salt." The advertiser may be the most honest man in the world. It might make him sick to make a false statement in his advertising, but if he put out an advertisement that was absolutely true, there would probably be not over ten per cent. of the readers of the advertisement who would really accept it as absolutely true. However, those few who came to the store and found out that the advertisement was absolutely true, would then gain the impression that the proprietor was a truthful advertiser. After three or four or more such experiences, they would then believe in his advertising until they experienced, or heard of something to shake their belief. Constantly repeating an honest advertisement adds to the number who believe in it. After several years of such advertising, the advertiser has a large clientele who will believe what he says as long as he continues the policy of straightforward, honest advertising.

However, it must not be forgotten that a man might be honest in purpose and honest in his statements and continually reiterate certain statements about his business and that reiteration might not increase his business. A very reputable book entitled "Modern Advertising," has this to say:

"No advertising is successful which does not sell the goods, and no advertising is unsuccessful which does. Each advertising plan proves what its merits are as it goes along, but the most that the wisest advertising man can do is to make a plan which covers all the incidents of his experience, and then watch the plan. There never was a right advertising plan that was not altered and changed each month. Every inquiry (and we would add each customer who calls in response to an advertisement) should be scrutinized—or questioned—for suggestions as to future wordings of advertisements and reading matter. The entire inspiration comes from people who respond to advertising or who fail to respond. The way in which they respond, or fail to respond, is a measure of the success or failure of your advertising. Nothing will show you the weak spots in a plan so quickly as the absence of replies."

Continuing, this book says:

"Advertising is a great, though almost unknown force, a force made up of a hundred different elements, each one too intangible to be defined. It is something which, properly directed, becomes a powerful agency in influencing human customs and manners. All the great forces that have moved the race, the elegance of the orator, the fervor of the religious enthusiast, superstition, terror, panic, hypnotism—all these things—are utilized in advertising. All the emotions of the race are played upon, appealed to, coaxed, cultivated and utilized. The man who can tell most nearly what one thousand people will think upon any given topic, will come the nearest to producing successful advertising, but no human being can really foretell the actual results of any advertising that was ever planned."

Some men are natural born advertisers, just as some men are natural born orators. They seem to know in advance, or are quick to divine and follow a lead as to what the public will like in a speech or in an advertisement. It is a mistake to treat every advertisement as if the whole success of a business depended upon it. Some part of every advertising campaign ought to be used in experimenting. I have seen advertisers get very angry because they had tried some form of advertising and it did not pay them as well as they thought it ought to. If they did not go into it too heavily, advertisers ought to consider every experiment as a lesson, in teaching them what not to do, as well as what to do.

Certain it is, that, in the way that most newspaper advertising is done by most druggists, that is a form of reiteration which is costly and too often unprofitable. I am a great believer in newspaper advertising. Both from observation of what others have done and from my own experience, I know that newspapers are one of the most profitable advertising mediums in existence. And yet there are a great many hundreds of thousands of dollars being wasted by retail druggists in newspaper advertising. That is not the fault of the newspaper, it is the fault of the druggist. Newspapers will mould public opinion. That general proposition cannot be gainsaid. If a druggist's present style of newspaper advertising is not moulding public opinion in his favor, it is his fault. If he will keep working at it long enough he will in all

probability find a form of newspaper advertising that will bring the utmost results, provided he is not afraid to experiment. There is such a thing as experimenting so long and so continuously, as to delay progress. The advertiser's expectations may be so great that when he really has struck the right "selling points" for his business, he will not recognize that the results are good, but will keep on experimenting, and thus throw away the oyster which contains the real pearl. If common horse-sense tells a druggist that he is superior to his competitors in certain lines, then he should settle down with the bulldog determination to make the public believe it also. He should go ahead and reiterate this fact until the public is brought to his way of thinking.

A very well known advertising writer recently made the statement that "Six good pieces of copy, rotated, or at most ten pieces, are all that any proposition needs for maximum results in a year's advertising." This writer was speaking of fifty-two pieces of copy, for in the above he refers to a weekly publication. He says that "The writer has tested this out, over a period of four years, on more than thirty-five campaigns, and has proven that repetition of copy at reasonable intervals, does not appreciably reduce the pulling power of the advertising, and in some instances has been known to increase it cumulatively."

Along this line some very odd things come to one's attention. Six or seven years ago a druggist in some western State—Iowa, I think—wrote to me and said that every time he inserted in the local newspaper an advertisement on seeds and bulbs, he could see immediate returns from his advertising, but he could not see any returns from his advertising of drugs and other similar lines in his store. He said that he had repeated the same seed and bulb advertisement a half-a-dozen times, and it always brought good returns. This is merely recited in order to bear out the statement made above.

Every druggist ought to be his own judge as to what advertising pays best, and what ought not to be repeated.

However, as a general proposition, worthy of the consideration of every man who spends one cent in advertising, I lay down the rule that reiteration is one of the most valuable elements in successful advertising. The reiteration may be accomplished by a duplication of mediums, or by a repetition of the same copy, or by a variation of the copy upon the same subject, or by a continual pounding of the same idea, varying it in any way that will attract and hold the attention of the reading public.

South Dakota Restricts Medicine Advertising.

The *Mail Order Journal* recently printed the following text of an act passed at the recent session of the South Dakota Legislature, and approved by the governor March 16th:

1. Any person who shall advertise, in his own name or the name of another person, firm or pretended firm, association, corporation, or pretended corporation, or in any newspaper, pamphlet, circular or other written or printed paper, or the owner, publisher or manager of any newspaper or periodical who shall permit to be inserted or published in any newspaper or periodical owned or controlled by him an advertisement of the treatment or curing venereal diseases, the restoration of "lost manhood" or "lost vitality," or shall advertise in any manner that he is a specialist in diseases of the sexual organs or diseases caused by sexual weakness, self-abuse or in any disease of like causes, or who shall advertise in any manner any medicine, drug compound, appliance or any means whatever whereby it is claimed that sexual diseases of men and women may be cured or relieved, or miscarriage or abortion produced, or who shall advertise any medicine or means whereby the monthly periods of women can be regulated, or the menses re-established if suppressed, shall be guilty of a misdemeanor and upon conviction shall be punished by a fine not less than fifty dollars nor more than five hundred dollars or by imprisonment in the county jail for not more than six months.

2. Distributing unlawful. Any person publishing, distributing or causing to be distributed or circulated, any of the advertising matter hereinbefore prohibited shall be guilty of a misdemeanor and punished as prescribed in section one of this act.

Dr. Reid Hunt, chief of the division of pharmacology of the hygienic laboratory at Washington, has been detailed to attend the twelfth International Congress on Alcoholism, held at London, Eng., July 18th to 24th, and the sixteenth International Medical Congress to be held at Buda-Pest, Hungary, August 29th to September 4th.

The net profits of Boots, Limited, the British drug-stores corporation, for the year ending March 31st, last, are reported to have been £23,236 5s. 8d. (more than \$100,000).

Direct-Contract Plan Declared Illegal.

Price-protection through contract schemes received an other blow when Justice Lanning of the United States circuit court for the district of New Jersey, sitting at Newark, June 26th sustained the demurrer to and dismissed with costs, the bill of complaint of the Dr. Miles Medical Company, of Elkhart, Ind., against C. W. Menk, a druggist of Newark. The complainant company sought to restrain the defendant, who had refused to sign its contract to maintain full prices on its preparations, from procuring from other sources a supply of these preparations and from offering them for sale at prices below those established by the proprietor.

In the complainant's bill were recited at length the advantages accruing to it under its system of marketing its products, this system, the direct-contract-serial-numbering plan, being set forth in detail. It was alleged that the defendant procured the products of the complaining company by false and fraudulent representations, and in cutting the prices of the preparations injured the complainant through occasioning a loss of reputation to its products.

Demurrer was interposed to the complaint on the grounds that the complainant did not state such a case as entitled it to any equitable relief; that the contract system of complainant as set forth in the bill was obnoxious to the statute of congress against restraints and monopolies in respect to interstate trade; that the contract system was illegal at common law; and that the complainant, if entitled to any relief, had an adequate remedy at law. Justice Lanning found the second ground of demurrer sufficient to sustain it and to dismiss the bill of complaint. His decision on this issue is in accordance with that in the case of the same complainant against John D. Park & Sons Company, of Cincinnati, for the same relief.

The memorandum of Justice Lanning follows:

The complainant is a manufacturer of certain proprietary medicines and seeks an injunction to restrain the defendant from procuring, or attempting to procure, for trade purposes, from any of its wholesale or retail dealers, any of its medicines. The right to the injunction is based on the contention that the defendant, who has entered into no contract with the complainant for the distribution or sale of its medicines, fraudulently procures them from wholesalers and retailers who have entered into such contracts. The case presented is in all essential respects the same as that disclosed in *Dr. Miles Medicine Company vs. John D. Park & Sons Company*, 164 Fed. 803. There the circuit court of appeals for the sixth circuit declared the contracts by which the complainant sought to maintain its monopoly to be illegal, both at common law and under the Sherman anti-trust act. The contracts relied on in the present suit need not be set out here, as they are exactly the same as those copies in the extenso at the end of Judge Lurton's opinion in the case above referred to. That opinion adopts the judgment expressed in the more exhaustive review of the authorities by the same learned Judge in *John D. Park & Sons Company vs. Hartman*, 153 Fed. 24.

In the present case the complainant alleges that contracts of the kinds set out in the bill have been entered into between it and over 400 jobbers and wholesalers and 25,000 retail dealers in proprietary remedies in the United States. That the effect of such a system is to restrain trade in the complainant's remedies is clear. And when we distinguish between the ownership of a secret medical formula and the ownership of a medicine compounded in accordance with that formula, as I think we should do, and as Judge Lurton did, there is no difficulty, even though the contracts be deemed illegal, in giving full effect to the rule that the owner of such a formula shall be protected against its use when the knowledge of it has been fraudulently or confidentially obtained. I do not think that transactions by which such a product is put upon the market by the owner of the formula are excepted from the regulative provisions of the Sherman anti-trust act. It is true that there are expressions in the opinion of Judge Archbald, speaking for the circuit court of appeals for this circuit, in *Jayne vs. Loder*, 149 Fed. 21, which, read without reference to the facts disclosed by that case, seems to afford ground for the contention here made by the complainant. But *Jayne vs. Loder* was an action at law against a combination of wholesale and retail druggists to recover damages under the seventh section of the anti-trust act. What was there said as to the rights of the manufacturer of a particular proprietary medicine to sell the product of his manufacture on his own terms and conditions was not essential to the decision of that case. I do not mean to intimate, however, that I disagree with what Judge Archbald said on that point. His language is: "Undoubtedly the originator and compounder of a proprietary medicine may shape his own policy, and sell or withhold from selling, as he pleases, according to supposed self-interest or whim, fixing prices and naming the terms and conditions at and upon which alone he will do so, refusing to those who will not comply. And so far as this is confined to his own goods, and pursued by independent and individual action, it cannot be challenged."

If this language be understood to apply only to sales made by the originator or compounder it seems unobjectionable. But if he sells his medicine to wholesalers and retailers throughout the United States upon agreements with them binding them all to sell to their vendees only upon terms and

conditions imposed by him, thereby attempting to control sales of his product in the different States after he has parted with all proprietary interest therein, his contracts with the wholesalers and retailers, in so far as such attempt is made, may be unenforceable, because of illegality under the provisions of the anti-trust act.

It seems to me that we have such a case here. The complainant's contract with retail dealers (see a copy of it in 164 Fed., pp. 803, 809), is one by which those dealers obtain, by purchase, an unqualified title to medicines manufactured by the complainant. The attempt in that contract to restrict the liberty of all retail dealers in the United States in the prices and conditions upon which they may sell, and the parties to whom they may sell, products in which the complainant has no proprietary interest whatever, is one that is obnoxious to the principles of the anti-trust act. I am disposed, also, to construe the contract between the complainant and the wholesale dealers (see a copy of it in 164 Fed., pp. 807, 808) as a contract of conditional sale and not one of bailment. The two contracts should be construed together. Of the wholesale contracts 400, and of the retail contracts 25,000 are now in existence in the several States of the Union. Together they constitute the "system" which the complainant now has in operation. They directly affect sales and restrain interstate trade. Whether they are objectionable under the common law, it is not necessary for me to consider. Judge Lurton seems to think that they are. It may not be easy to harmonize his views with those expressed in the late case of *National Phonograph Company, Limited, vs. Edison-Bell Consolidated Phonograph Company, Limited*, L. R. Chan. Div., Vol. 1 of 1908, page 335. I prefer to place my decision on the ground that the contracts now before me are illegal under the provisions of the Sherman anti-trust act.

As this is one of the grounds of demurrer of the bill, the demurrer will be sustained and the bill dismissed, with costs.

It was stated that an appeal will be taken.

Differentiating between a Medicine and a Beverage.

In reply to numerous inquiries as to what constitutes a bona-fide medicinal preparation containing alcohol, the internal revenue bureau has made the following public statement:

This office holds that in a genuine medicine the alcohol should not be more than is necessary for the legitimate purposes of extraction, solution or preservation, and that the preparation should contain approximately a U. S. P. dose of some medicinal ingredient of recognized value, either alone or in combination with other compatible drugs. Where a substantial effort has been made to introduce medication, without, however, coming up to the standard set by this office, it is the practice to notify the manufacturers and give them an opportunity to change their formulas; and in such cases while the manufacturer is required to pay special tax on account of the manufacture and sale by himself of such preparations, special tax is not required of retail druggists on account of the sale of the same in good faith for medicinal use only, if the formula is changed, or until after public notice has been given, if the manufacturer declines to make such change.

Imported Drugs and Chemicals in Japan.

Some questions arose recently especially among British manufacturers as to the reasons for the rejection of imported drugs and chemicals by the Japanese hygienic laboratory. In this connection the Japanese authorities explained that they never rejected articles conforming to the requirements of the Japanese Pharmacopœia No. 3. They directed the attention of manufacturers to the probable effect of packing and transportation upon drugs and chemicals.

One of the causes for the rejecting of certain articles was the use of metallic containers for extract of ergot, and tannin-bearing extracts in general, whereby the contents became contaminated. Solution of formaldehyde has also been rejected because it did not satisfy the ammonia test of the J. P., which is different from that of the pharmacopœias of most European countries.

Modification of Alcohol-Stamp Ruling.

In several recent decisions the internal revenue bureau has modified T. D. 1476, which required all 5-gallon containers of alcohol to bear a revenue stamp, although they contained less than five gallons of alcohol, by exempting from its provisions glass and earthenware containers, wicker-covered or otherwise, and metal containers, having a holding capacity of five gallons, when the quantity of alcohol contained is less than five gallons.

Massachusetts College Election.

At the recent annual meeting of the trustees of the Massachusetts College of Pharmacy, the following officers were elected: President, C. H. Packard; vice-presidents, L. H. Smith, and Herman Heinivitz; secretary, L. W. Griffin; treasurer, J. G. Godding; and auditor, Max Cramer.

Program for the Los Angeles Meeting of the A. Ph. A.

Secretary J. W. England, of the council of the American Pharmaceutical Association, has announced that that body has approved the following program for the fifty-seventh annual meeting to be held at Los Angeles, August 16th to 20th:

- Monday, August 16th—
 9 A. M. Meeting of the council.
 Meeting of National Association of Boards of Pharmacy.
 3 P. M. First general session.
 8 to 9 P. M. Reception.
- Tuesday, August 17th—
 10 A. M. Second general session.
 3 P. M. First session of the section on commercial interests.
 8 P. M. Meeting of Conference of Pharmaceutical Faculties.
 Meeting of National Association of Boards of Pharmacy.
 Second session of the section on commercial interests.
- Wednesday, August 18th—
 10 A. M. First session of the section on education and legislation.
 3 P. M. Second session of the section on education and legislation.
 8 P. M. Third session of the section on education and legislation, with the Conference of Pharmaceutical Faculties and the National Association of Boards of Pharmacy. (In accordance with the wishes of the local committee on arrangements this joint session will be held at the hotel at Long Beach, where dinner is to be served. Members will be taken by trolley cars to the beach after adjournment of the afternoon session, the trip requiring 45 or 50 minutes).
- Thursday, August 19th—
 10 A. M. First session of the section on scientific papers.
 3 P. M. First session of the section on practical pharmacy and dispensing.
 8 P. M. Second session of the section on scientific papers.
 Second session of the section on practical pharmacy and dispensing.
- Friday, August 20th—
 10 A. M. Session of the section on historical pharmacy.
 2.30 P. M. Final general session.
- The Entertainments.
- Monday—
 Reception in the evening, given by the chamber of commerce.
- Tuesday—
 Forenoon, Auto rides for the ladies.
 Afternoon, Inspection of the fruit preserving plant of Bishop & Co.
 Evening, Card party for ladies.
- Wednesday—
 Morning, Shopping expeditions for the ladies.
 Evening at Long Beach.
- Thursday—
 Afternoon, Trolley trip to Pasadena.
 Evening, Smoker after the meeting. Card party for ladies.
- Friday—
 The balloon trip—a trolley ride to the different beaches and returning to spend the evening at Venice.
- Saturday—
 A trip to Catalina, at 9 o'clock in the morning, via the Pacific Electric Trolley line to San Pedro and thence via steamer to Catalina.

The Plain, Hard-working Druggist at the A. Ph. A.

As was to have been expected, Harry B. Mason, chairman of the American Pharmaceutical Association's committee on commercial interests, has prepared an interesting program for the two sessions of his section. The topics he has selected for discussion and the men he has chosen to lead the discussions show that in one section at least, at the Los Angeles meeting, the every-day druggist will be more at home than the "scientific fellers."

A list of the papers and subjects for talks follows:

Tuesday, August 17th.

1. Address by the chairman, Harry B. Mason.
2. Reports of committees.
3. The Druggist's Mailing List: A symposium by Lewis Flemer, H. F. Ruhl, Franklin M. Apple, W. M. Federmann, Louis Schulze, Jacob Diner and Cornelius Osseward.
4. My Best Selling Soda Syrup: A symposium by F. W. R. Perry, Katz & Besthoff, Ltd., E. E. Calkins, Arthur L. Cheney, George A. Gorgas, William G. Greenawalt and James M. Avis.
5. The Preparation and Use of Show Cards: A paper and exhibition by A. R. Eberle, Watertown, Wis.
6. Winning the Farmers' Trade, by A. V. Pease, Fairbury, Neb.
7. The Druggist and His Advertising, by J. W. T. Knox, Detroit, Mich.
8. Some Thoughts on a Live Subject, by E. N. Ladish, Chicago, Ill.
9. The Handling and Sale of Perfumes, by P. Henry Utech, Meadville, Pa.
10. Credits and Collections, by William Mittelbach, Booneville, Mo.

11. Selling Spices and Flavors, by John F. Patton, York, Pa.
12. Practical Methods of Gaining the Support and Patronage of Physicians, by D. F. Jones, Watertown, S. D.
13. Selling the Dispensing Doctors, by Waldo M. Bowman, Toledo, Ohio.
14. How Best to Increase One's Prescription Business: Two papers, by Jacob Diner, of New York, and Cornelius Osseward, of Seattle.
15. Subjects for extemporaneous discussion: The Inventory; Newspaper Advertising; Bookkeeping Methods; The Soda Fountain; The Handling of Clerks; and One's Own Specialties.

The Purpose of the N. A. B. P.

In a communication sent out to the State boards of pharmacy by F. B. Lillie, of Guthrie, Okla., president of the National Association of Boards of Pharmacy, with the purpose of interesting the members of the boards in the work of the association, some of the things which the organization seeks to accomplish were stated thus:

Reciprocal registration of those qualified to practice pharmacy has come to stay and the time is not far distant when the pharmacists of your State will demand that they be given the right that is given to their brethren in the profession in other States. Your influence as a progressive State board is needed by the association to help in raising the standard of qualifications of candidates and the standard of board examinations to a point where a general interchange of certificates between all the States can be made upon a standard set by the association or by the individual boards.

At the last meeting, the association recommended that all boards affiliating with our association should adopt a minimum average grade of 75 per cent., with a minimum grade of not less than 60 per cent. on any one subject as a passing grade, and that all applicants should have received a grammar-school education or its equivalent. Now if the several State boards agree upon the methods of examinations and the quantity and quality of questions and practical work, we will be accomplishing what this association was organized for, as declared in the preamble to our constitution. This can only be done by organization and co-operation.

If your board believes (it is the case with some) that under your law you cannot register an applicant upon his examination by another State board you can still be associated members and be entitled to all the privileges of the association which you will find provided for in article 3 of the constitution. But you should endeavor to secure such amendments to your law as will permit reciprocal registration, if you expect to be in line with other progressive States, for, as above stated, reciprocal registration between the States has come to stay.

The N. A. B. P. will meet at Los Angeles during the meeting of the American Pharmaceutical Association.

The N. A. R. D. at Louisville.

Simon N. Jones says that this year's meeting of the National Association of Retail Druggists to be held at Louisville, beginning September 6th, will surpass any of its predecessors in the number of persons attending, and in general satisfaction.

The publicity committee of the local association announces that there will be many new features introduced which will detract from the usual monotony of conventions. At the close of the convention there will be an opportunity of seeing the famous Mammoth Cave, which is a comparatively short distance from the convention city. There will be special railroad rates.

Headquarters will be at the Seelbach Hotel; and in addition there are excellent accommodations in many other hostleries nearby.

Pharmaceutical Society of Great Britain.

Thirty-six pharmacists were enrolled as members of the Pharmaceutical Society of Great Britain at the meeting of the council of the society held June 9th, at London. Seven new student-associates were also admitted.

The general fund showed a balance on hand of £3,751 15s. 5d.

Officers were selected as follows: President, J. F. Harrington; vice-president, W. L. Currie; treasurer, Walter Hills; secretary, Richard Bremridge; editor of *Pharmaceutical Journal*, John Humphrey; curator of the museums, E. M. Holmes; and secretary for Scotland, Ruth-erford Hill.

Society of Chemical Industry.

At the annual meeting of the Society of Chemical Industry, held at London, in May, Prof. Ira Remsen, president of Johns Hopkins University, was elected president. The other officers are: Vice-presidents, Dr. G. Beilby, Eustace Carey, Dr. J. T. Dunn, E. G. Hooper, A. P. Ling, Prof. R. Meldola, Dr. R. Messel, Sir Poverton Redwood, W. F. Reid, G. C. Stone, Dr. T. B. Wagner, and R. C. Woodcock; secretary, C. G. Creswell; treasurer, Thomas Tyrer; and foreign secretary, Dr. Ludwig Mond.

An Attorney on the Status of the New York Board of Pharmacy.

Ever since Governor Hughes in his message to the recent session of the State legislature expressed a doubt as to the legal standing of the New York Board of Pharmacy, a similar doubt has arisen and grown in the minds of many druggists of the State. And not only the standing of the board but its methods have been questioned. Out of such questioning arose the subjoined correspondence in which R. S. Conklin, attorney and a member of the last legislature, expresses his opinion relative to the standing of the board in a court of law.

Under date of July 1st, Thomas Lamb, of Brooklyn, as secretary of the Retail Druggists' Protective Association, wrote to Mr. Conklin as follows:

Dear Sir:—As you are doubtless aware, I was one of the supporters of William T. Creagan in the recent Brooklyn election on members of the State Board of Pharmacy.

We claim that Mr. Creagan received a clear majority of the votes cast by druggists who were properly entitled to participate in the election.

The election inspectors who are appointed by the State board of pharmacy for the eastern section have declared that Dr. Anderson, who was Mr. Creagan's opponent, received 358 votes to 226 for Mr. Creagan. But of the 358 votes of Dr. Anderson, if he received that number, 148 were cast by members of the Interborough Pharmaceutical Association, although we vigorously protested against their being received.

The Interborough association was incorporated several years ago by the attorney for the board of pharmacy to permit students and clerks just out of college to participate in the election of 1904. In that election it cast about 40 votes. It has never been heard of since until election day of this year. It has never held a meeting since its organization. It has no by-laws, and, so far as I can learn, no constitution.

Those who voted as members were not required to make formal application for membership. No vote of the association was ever required to make a man a member. If he was thought "safe" he was simply sent a post card stating that "Bearer is a member in good standing of the Interborough Pharmaceutical Association," and signed by the secretary. On presentation of this card to the election inspectors the "member" was permitted to vote. Some of the "members" did not even know the name of the association. All other associations were required by the board of pharmacy to submit a copy of their by-laws and constitution, and lists of their members before polls were opened. This was not required by [1] the Interborough. Those who called themselves "officers" of the Interborough were permitted to use their list of members and add names to the same one hour and ten minutes after the polls were opened, and it was only when they flagrantly took a man who had no card into a private room to issue one to him that our protests were heeded and the list was given over as final to the chairman of the election board.

We ask your opinion in view of these illegal proceedings, as to what can be done towards securing for Mr. Creagan the recognition which rightfully belongs to him as a member of the State board of pharmacy.

Mr. Conklin's reply is dated July 20th and is as follows:

Dear Mr. Lamb:—I have received your communication in reference to the recent election for member of the State board of pharmacy held in Brooklyn, and have given careful consideration to the protests which you make against the conduct of the election officials and the admission of the members of the Interborough association to vote. In accordance with your request for my opinion as to your rights in the matter, I submit the following:

Apart from all other considerations, it would seem that if the facts are as you state them, and that some one hundred and fifty members of the Interborough association were permitted to vote, that this in itself would be sufficient ground on which to base a contest against the admission of Dr. Anderson to membership in the board of pharmacy. I do not believe that any court would so construe the law as to find in it warrant for the voting of such fake associations as this. It surely could not have been the intention of the legislature which enacted this section to include under the term "associations" organizations which existed on paper only, and whose members had no cognizance of their status as members until they received from some mysterious source cards which permitted them to participate in elections of members to the State board of pharmacy. It is amazing that men of such high character as Dr. Anderson would tolerate such disgraceful proceedings.

Apart from this, however, I find the law governing elections curiously indefinite. Sub-divisions 3 and 4 of section 230, of article 2 of the public health law, provides that there shall be elections of members of the State board of pharmacy in the eastern section, and that such elections shall be by the vote of members of an incorporated pharmaceutical association; further, that the State board of pharmacy shall designate a day in June, and a place at which the election shall be held, and shall give fifteen days' notice of the time and place to the associations. But neither in these sub-divisions nor anywhere else in the statute law of the State that I can find, is there any other provision governing the election of members of the State board of pharmacy. It has, as I understand it, been the custom of the board of pharmacy to appoint a board of election inspectors, tellers and poll clerks, and a board of canvassers to announce the result of the election. There is no warrant for such action by the board of pharmacy. These election officials who have heretofore officiated have no more standing than would any other private citizen. Their decision as to who are or who are not entitled to vote is binding on no one; their declarations of the result of an election have no force or effect.

It seems, therefore, that it is not possible to bring quo warranto proceedings in behalf of Mr. Creagan to test the title of Dr. Anderson's office, because there is no title. There are no election officials who have the authority to declare the result of an election, or who have the authority to confer any title, and quo warranto proceedings can only be brought to test the title to an office.

There can be no certiorari proceedings, because certiorari proceedings can only be brought to review proceedings of some board which by law is given power to act. There is no such board in existence in this case. It, therefore, appears that neither Dr. Anderson, nor any member of the State board of pharmacy for the eastern section, at least, has any title to his office, and the gentlemen who at present represent themselves as constituting the State board of pharmacy for this section are nothing more nor less than a body of private citizens who pretend to the possession of an official status, and collect fees under such pretence.

I am aware that this will seem at first an amazing situation. I admit that it is remarkable that it should have continued for some eight or nine years, but I cannot find after the most careful investigation that the board holds office by virtue of any other claim than their own unsupported assertion that they were elected to the same.

I have taken this matter up with New York State Attorney General O'Malley, and he agrees with me that the law is astonishingly inadequate and indefinite, and he has, as yet, been unable to find any grounds for dissent from the construction that I have placed upon it. He is now looking into the matter, and we will shortly confer and determine upon some course of action.

I have also called the matter to the attention of Governor Hughes, and have received notice from him that he is also considering this remarkable state of affairs.

The law does not declare what shall be an "incorporated pharmaceutical association"; it does not even provide that election shall be by a majority vote, and so, for all that appears, the board of pharmacy might make rules and regulations requiring a unanimous vote, rather than a majority vote of the members of the pharmaceutical associations, and in the absence of any new election, perpetuate themselves in office forever.

To my mind the board has no authority to collect a single dollar as a fine or penalty. It has no power to collect, and it is a question whether it would not be an offense for it to receive any money as a registration fee; and it has no power to hold examinations or to issue any licenses to practice pharmacy. If I am correct it will be apparent that it is unfortunate that the representatives of the State pharmaceutical association opposed any legislation at Albany last winter in order that the present board might be continued in control of pharmaceutical affairs, and it is very apparent that prompt action by the next legislature will be necessary in order that the laws governing the practice of pharmacy may be enforced, and licenses issued to those desiring to practice, or to those who are now practicing under what they believe to be valid licenses from the present board.

New York Board Loses on a Technicality.

When at the last session the New York legislature enacted the consolidated laws which were approved by the governor February 17th, it thereby repealed a number of existing laws, among them, chapter 667 of the laws of 1900—the State pharmacy law. Instead of that chapter there was placed upon the statute books article 11 of chapter 45 of the consolidated laws, differing from chapter 667 of the laws of 1900 only in a few minor details.

June 9th last the New York Board of Pharmacy brought suit against Barney Mishking, of Brooklyn, alleging three violations of the pharmacy law to have been committed by him November 21st, 1908, to wit, the sale to an inspector of the board by an unregistered employee of some tincture of iodine containing, according to the contention of the board, approximately 5.56 per cent. of iodoine and 3.9 per cent. of potassium iodide; and some liniment of soft soap alleged to contain methyl alcohol. But one penalty, \$25, was sued for.

The case was tried before Justice Benjamin Hoffman in the third district municipal court. In deciding against the board and dismissing the suit, Judge Hoffman held that the action for the recovery of the penalty did not lie against the druggist, because at the time of the commencement of the suit the law relating to it had been repealed.

Steiner & Peterson, counsel for the board, held that the repeal of the law did not deprive the board of the right to sue for a penalty upon a violation committed previous to the repeal.

Bernhard Ginzburg, counsel for the defendant, argued that no action could lie because the suit was only for a penalty and with the repeal without a saving clause of the statute creating the offense the cause of action abates.

Counsel for the board have stated their intention to appeal from the decision, averring the application of the general construction law of the consolidated laws, which they say continues the right of action under any of the repealed sections, unless other provision is made.

Counsel for the defense says that the case could have been won on its merits, and has a chemist's certificate rebutting the statements of the chemist for the board.

The New York College.

In his report as dean of the college of pharmacy to the president of Columbia University for the academic year ending with June, Dr. H. H. Rusby touches upon a number of points of interest to pharmacy in this State and nation. He begins his report with the following comment on the legislative situation:

An event of great interest and importance to the college has been an attempt to secure a revision of the pharmacy law of this State. This attempt, embodied in the Brown bill, was made in response to a recommendation by Governor Hughes, who has taken a deep interest in pharmaceutical affairs, as well as to a demand from the progressive elements in pharmacy. The important feature of the Brown bill, from an educational point of view, was that of placing the examination and licensing of pharmacists, as well as their education, under the immediate control of the State education department. The bill contained many other provisions causing it to appeal strongly to our approval, but, unfortunately, as a result of hasty and ill-considered action, it misrepresented both its author and its friends in the form of its final passage by the legislature, and met a well-deserved veto. Owing to the fact that this attempt is certain to be at once repeated, under more favorable auspices, it still claims our close attention.

The dean refers with apparent satisfaction to the "reformation" in pharmaceutical education—which, it should be said in justice to him and the institution he represents, he took the leading part in bringing about.

A strong desire for more instruction and better opportunities is noted among the students in the university class in pharmacy, and means of giving them this are discussed.

As a better grade of students is secured and the course in pharmacy is advanced, more use is made of the library and museum; therefore more books, journals, and specimens are needed, and more room in which to keep them.

The food-and-drug course at the college, now three years old, continues to be of special interest.

New instructors have been provided in the pharmacy and chemistry departments.

Dean Rusby has a good deal more to say, and concludes thus:

The notable generosity of American donors to educational work leaves something to be desired in the judgment that is displayed in its exercise. Assistance is too often denied to those stages during which its usefulness would be multiplied. Long periods of crippled effort are entailed through neglect at the time when aid is most needed. When those who have struggled at a disadvantage until a final and tardy success has been attained have passed away, assistance is apt to be showered as a reward upon those who have occupied no other relation to the struggle than that of becoming its beneficiaries.

German Apothecaries' Outing.

Compacted yet congenial was the gathering of German apothecaries, their families and friends at the sommer-ausflug of the New York German Apothecaries' Society at Witzel's Pavilion, College Point, L. I., July 8th, compacted, because of the limited extent of the grounds; congenial, because congeniality is characteristic of the G. A. S. and its affairs. Even the weather man, who too often disappoints the society, was all smiles throughout the day.

The bowling alleys were fine, and in the individual contests excellent scores were made by women and men, and the prizes were closely contested for. The form displayed in the match between the Friday Bowling Club and the Thursday Bowling Club, was not of a gold-medal standard, but was good under the conditions. The Friday Club won by 739 points to 592.

There were races for the women and children; an excellent supper; and enjoyable dancing until midnight.

Philadelphia Association.

For a mid-summer gathering there was a representative attendance at the meeting of the Philadelphia Association of Retail Druggists held July 2d.

After considerable discussion the Pennsylvania Railroad was decided upon as the route to be taken to the Louisville meeting of the National Association of Retail Druggists.

There was some lively discussion following the reading of the report of the legislative committee by W. L. Cliffe. The new restrictions on the sale of phenol gave rise to many questions. It was deemed advisable to acquaint the public through the newspapers, with the limitations that now attend the sale of this poison.

W. E. Lee presented an interesting report of the delegation to the meeting of the Pennsylvania association.

The Wampole matter (see last month's CIRCULAR, page

379) again came up through the receipt of a letter of explanation from the concern in question. In the opinion of those present the explanations did not explain, and the secretary was instructed so to inform the company and to advise it to proceed against any druggists known to it to have been guilty of the alleged substitution.

Reporting for the entertainment committee, H. A. Nolte said that the proceeds of the recent minstrel show and dance were \$400.

Other matters discussed were store-lighting and advertising-commissions.

Explaining the Ohio Law.

R. W. Dunlap, the Ohio dairy and food commissioner, tempers somewhat his just administration of the State food and drugs law with a merciful consideration of those affected thereby. He makes an effort to remove all ambiguity from the phraseology of the law and to state clearly his interpretation of its provisions.

In a recent bulletin the commissioner cautioned the druggists about the method of keeping spirit of nitre, tincture of ferric chloride, solution of hydrogen dioxide, lime water, and ammonia water. He also advised strict adherence to the official processes and standards for bay rum, and tincture of iodine.

Relative to the use of methyl alcohol in preparations for external use he said: "Druggists, in former years, to some extent used wood alcohol, under such names as 'eagle spirit' and 'columbia spirit,' being assured by the manufacturers and their agents that the same could be used in medicinal preparations intended for external application only. The Pharmacopœia recognizes but one alcohol, ethylic or grain alcohol, for use in its preparations.

The Ohio law now prohibits the use of wood or methyl alcohol in any medicinal preparation, whether it is a U. S. P. or National Formulary preparation, or any 'patent' or proprietary preparation, whether for man or beast, or for internal or external use."

Hoffmann's anodyne is defined by the commissioner as compound spirit of ether; Hoffmann's drops in Ohio, means spirit of ether.

As to the proper labeling of drugs the commissioner said: "These features of the law [with regard to the specified substances whose presence must be declared, and the use of misleading names or devices on labels] are intended to and do cover all packages whether sold at wholesale or retail, and dealers selling goods in packages smaller than the original packages in which they are received should see that the law is complied with as to such retail packages, so that the purchaser who is to use the preparation may have the labeling required by law, before him and have the information the law contemplated he should have. The amended law requires all drugs containing alcohol, morphine, etc., to have the quantity or proportion therein stated on the label. Many labels have been found which read as follows: 'Contains not more than 50 per cent. alcohol.' Such labeling is incorrect. The label should state a definite amount."

Medico-Pharmaceutical Organization in Ohio.

An important advance toward higher pharmacy was made in the organizing of a medico-pharmaceutical section of the Cleveland (O.) Academy of Medicine. The organization meeting was held June 25th, the following officers being elected: Chairman, L. C. Hopp; vice-chairman, M. G. Tielke; secretary, Dr. J. B. McGee; and counselor, Dr. L. J. Tuckerman.

The purpose of the new section will be to foster the education of both physician and pharmacist with regard to official preparations, and to improve the relations between the two professions. Doctors and druggists have an equal voice in the affairs of the section.

At the June meeting the following papers were presented: "The Use of the Section to the Medical Profession," by Dr. H. W. Rogers; "The Use of the Section to the Pharmaceutical Profession," by L. C. Hopp; and "The Important Official Flavoring and Coloring Vehicles," by H. V. Army.

Anton Gates, Lafayette and Erie streets, Toledo, Ohio, against whom a charge of illegal cocaine-selling was brought and later dismissed quietly by a deputy State food and dairy commissioner, has brought suit against that official claiming \$5,000 damages.

News of the State Associations.

August Meetings of State Associations.

CALIFORNIA, 13th and 14th, at Los Angeles.

NORTH DAKOTA, 3d and 4th, at Grand Forks.

SOUTH DAKOTA, 18th to 20th, at Lead.

Iowa Association.

Ottumwa was overrun with druggists during the thirtieth annual meeting of the Iowa Pharmaceutical Association held there July 6th to 8th, because a greater-than-ever-before portion of the 633 members of the organization were present at this year's gathering. To secure additions to the foregoing figures the association decided to send to every non-member druggist in the State a copy of the printed Proceedings for this year.

Treasurer J. B. Webb, of De Witt, reported the goodly sum of \$1,256.90 in the association's strong-box.

This year's meeting was replete with interesting addresses and reports. In addition to the annual message of President J. L. Franken, of Sigourney, the members listened to a talk on pharmacology, assaying, and pharmaceutical ethics, by Dr. Chase, of the University of Iowa; one on the recent drug legislation of the State, by J. W. Clements, of the Iowa board of pharmacy; and another by C. M. Carr, editor of the *Journal of the National Association of Retail Druggists*, on propaganda, price protection, and legislation.

Miss Zada M. Cooper, of Red Oak, reported for the committee on adulterations. Prof. W. J. Teeters, of Iowa City, reported as the delegate to the 1908 meeting of the American Pharmaceutical Association.

The report of the committee on queries was read by H. T. Fish, of Mediapolis. The committee had secured papers on the suggested subjects, as follows: "The Requirements for Success in the Retail Drug Business," by J. G. Baker, of Dubuque; and W. F. F. Hunger, of Titonka. "Proposed Legislation in the Last Iowa Legislature for the Re-organization of the Pharmacy Commission—Is a Change Desirable?" by E. M. Burns, of Mason City; "Publicity and Prominence—Window Displays, Pamphlets, Newspaper Advertising—Which Is the More Productive of Results?" by W. F. F. Hunger, of Titonka; "Co-operation Between Physicians and Pharmacists—the Advantage, and How Best to Bring It About," by Zada M. Cooper, of Red Oak; and W. F. F. Hunger, of Titonka; "The Drug Store the Ladies Patronize, and Why," by Zada M. Cooper, of Red Oak; Dorothy Gerlach, of Carroll; Mrs. H. T. Fish, of Mediapolis; Mrs. M. C. Nix, of Marshalltown; and Mrs. W. F. F. Hunger, of Titonka.

A very complete series of entertainments supplemented the business of the convention, and ample opportunity was afforded for those gifted athletically, sartorially, physiognomically, and a la Terpsichore to secure valuable prizes.

Officers and delegates were elected as follows: President, F. B. Clark, of Ottumwa; vice-presidents, Miss Zada M. Cooper, of Red Oak; H. T. Fish, of Mediapolis; and J. G. Stanley, of Dexter; secretary, J. M. Lindley, of Winfield; treasurer, J. B. Webb, of DeWitt; executive committee, N. F. Reed, of Ottumwa; E. M. Burns, of Mason City; and A. C. Wilson, of Oelwein; delegates to the A. Ph. A., W. J. Teeters, of Iowa City; Mrs. Fletcher Howard, of Des Moines; J. L. Etzel, of Clear Lake; and T. W. Route, of Dubuque; delegates to the N. A. R. D., R. W. Harvey, of Missouri Valley; G. H. Boynton, of Cedar Rapids; and F. L. Michael, of Mason City.

Des Moines was selected as the 1910 meeting place.

Kentucky Association.

The thirty-second annual meeting of the Kentucky Pharmaceutical Association held at Cerulean Springs, June 15th to 18th, was one of the most successful and profitable in the history of the organization. One hundred and fifty members were present, and the sessions were characterized by a large attendance, close attention and interesting discussions covering a wide range of timely topics. Plans were begun for enrolling if possible every druggist in the State, it being recognized that a more representative body was needed if the desired amendments to the pharmacy law were to be secured.

In voting to reaffiliate with the National Association of Retail Druggists, an enthusiastic endorsement of the work and policies of the national organization was pronounced.

A motion to the effect that the annual dues be increased

from \$1 to \$2 was lost. A motion was carried recommending that efforts be made to have the pharmacy law amended to provide for the registration of assistants in pharmacy and apprentices, with a strong feature regulating the sale of medicines by itinerant vendors.

Officers for the ensuing year were elected as follows: President, G. L. Penny, of Stanford; secretary, J. W. Gayle, of Frankfort; treasurer, Vernon Driskell, of Ghent; and chairman of the executive committee, J. T. Elam, of Henderson.

The next annual meeting will be held at either Olympian Springs or the Mammoth Cave, to be determined by the executive committee.

Maine Association.

In celebrating its forty-second birthday at Portland, June 29th to July 1st, the Maine Pharmaceutical Association demonstrated its activity by adding to its already large membership some forty persons.

Much to the regret of the members, W. I. Drew, of Portland, who had been the treasurer of the association for twelve years, declined re-election. Appreciation of his services was shown by the adoption of commendatory resolutions. The office of treasurer was combined with the secretaryship.

After six men had been selected for nomination to the governor in his selection of a member of the board of pharmacy to succeed C. H. Davis, of Bangor, five of the candidates withdrew in favor of F. T. Crane, of Machias, and he was then unanimously endorsed.

Sailing, base-balling, dining and pic-nicing furnished entertainment after business.

Officers and delegates were elected as follows: President, John Coughlin, of Augusta; vice-presidents, C. H. Davis, of Bangor; G. O. Tuttle, of Portland; and H. T. McClearn, of Boothbay Harbor; secretary and treasurer, M. L. Porter, of Danforth; executive committee (in addition to the officers), F. W. Buckman, of Skowhegan; and E. W. Murphy, of Portland; delegates to the American Pharmaceutical Association meeting, John Coughlin, C. H. Davis, Herschell Boynton, J. A. Broe and C. H. Bane; delegates to the United States Pharmacopœial Convention, C. H. Davis, F. R. Partridge and E. S. Everett.

Maryland Association.

The twenty-seventh annual meeting of the Maryland Pharmaceutical Association held at Ocean City, June 22d to 25th, brought together a larger number of druggists than has attended similar gatherings in years. In point of interest, too, the sessions were ahead of many previous ones, and the stay of the members by the seaside was rendered enjoyable by fine weather and various diversions.

Much interest was manifested in the annual address of President W. M. Fouch, of Baltimore. He counseled co-operation among the various divisions of the drug trade as an essential factor in the accomplishment of results, and pointed out that the State association was peculiarly fitted to undertake the work of promoting pharmacy legislation and other matters because of its being composed of representatives of all branches of the business. He suggested that a general council be formed, consisting of delegates from all the other organizations, one delegate to be named for each fifteen or so members, and that a certain per capita tax be imposed on the members of the various organizations as a fund with which the State association could defray the expenses of the work conducted by it. The suggestion was received with much favor, and the other bodies will be requested to give their views on the several propositions.

The report of Secretary E. F. Kelly, of Baltimore, showed that the association had gained in membership and is stronger than ever. Fourteen druggists had been admitted into the organization during the year. The financial condition was also reported to be highly gratifying.

The papers read included the following: "Substitutes for Iodine," by Dr. Herman Engelhardt; "The Manufacture of Glass, from a Chemical and Physical Standpoint," by P. I. Heusler; "A Remarkable Pharmacist," by Prof. Daniel Base; "Nine Prescriptions," by H. A. B. Dunning; "Some Necessary Amendments to the Pharmacy Law," by Louis Schulze; "Permanence of Galenical Preparations," by Dr. A. R. L. Dohme; "Sulphurous Acid," by H. A. B. Dunning; and "Soluble Elastic Capsules," by J. J. Barnett.

The committee on legislation, in its report, recommended that a pure food and drug bill, drawn on the lines of the Federal statute, be submitted at the sessions of the next

Maryland general assembly. In this request is reflected the attitude of the drug organizations of the State.

Officers were elected as follows: President, J. B. Thomas, of Baltimore; vice-presidents, W. C. Aughinbaugh, of Hagerstown; W. J. Lowry, of Baltimore; and E. R. White, of Salisbury; secretary, E. F. Kelly, of Baltimore; treasurer, J. W. Westcott, of Baltimore; executive committee, R. E. L. Williamson, W. M. Fouch and J. E. Bond, all of Baltimore.

The speakers at the annual banquet included the new president, who gave a forecast of the work to be done during the next year; H. F. Baker, president of the Baltimore Drug Exchange; A. C. Meyer, who spoke on "Legislation of Interest to the Pharmacist"; Prof. Daniel Base, on "The Baltimore College of Pharmacy"; and C. L. Henry.

Massachusetts Association.

About 700 persons were in attendance at the twenty-eighth annual meeting of the Massachusetts Pharmaceutical Association at Swampscott, when the first session was called to order on the afternoon of June 22d. Before final adjournment was taken on the 24th, this number had been increased to almost a thousand.

After the formal greetings were over President E. L. Leonard, of Springfield, read his annual address, a masterful handling of the pharmaceutical topics of the day. His recommendations were as follows: (1) That the association submit to the governor the names of three candidates for this year's vacant position on the board of pharmacy; (2) that efforts be continued to have a pharmacist on the State board of health and that the names of three candidates be submitted to the governor; (3) that the maintenance of the association's scholarship at the Massachusetts college be continued; (4) that affiliation with the National Association of Retail Druggists be continued and two delegates sent to the 1909 meeting; (5) that appropriate tribute be paid to the memory of J. H. Manning; (6) that the legislative committee be empowered to employ counsel; (7) that the association withdraw from membership in the State board of trade; (8) that three delegates be sent to the pharmacopoeial convention; (9) that the association adopt the resolutions recently adopted by the Pittsburg (Pa.) branch of the American Pharmaceutical Association (see the CIRCULAR for June, page 310); and (10) that a committee of three or five be appointed to study the liquor-law problem, and existing conditions with a view to determining the advisability of changing the law of the State.

The committee to which this address was referred recommended the approval of the president's recommendations with the exception of the last two. In lieu of the tenth, the committee advised the referring of the liquor question to the legislative committee. The association concurred in the recommendations of the committee.

The reports of Secretary J. F. Guerin, of Worcester, and Treasurer T. B. Nichols, of Salem, proved conclusively that the association had experienced during the past year the most prosperous era of its existence. One hundred and forty-seven new members were enrolled at the meeting.

A paper by J. A. Gilman, of Boston, on "The Changes That Have Taken Place in the United States Laws Governing Proprietary Remedies" was received with well-merited commendation. Prof. Patch, of Worcester, lectured on "Darkest Africa."

For the governor's consideration in selecting a successor to L. A. Lamson, of Hopedale, who retires from the board of pharmacy this year, the association nominated W. S. Flint, of Worcester; H. T. Carson, of New Bedford; and P. S. Moriarty, of Worcester.

W. N. Curtis, of Roxbury; L. G. Heinritz, of Holyoke; and L. A. Lamson, of Hopedale, were nominated for the consideration of the governor in selecting a member of the board of health.

E. O. Engstrom, of Pittsfield; C. F. Nixon, of Leominster; and F. A. Hubbard, of Newton, were selected as delegates to the United States Pharmacopoeial Convention.

Officers were elected as follows: President, J. F. Finneran, of Boston; vice-presidents, A. J. Brunelle, of Fall River; H. A. Barnard, of Marlboro; and F. J. Campbell, of Lowell; secretary, J. F. Guerin, of Worcester; treasurer, T. B. Nichols, of Salem; trustees, W. F. Sawyer, F. E. Mole and G. S. Roskell.

A burlesque ball game and other athletics, cards, vaudeville, dancing and a sumptuous banquet were the features of the lighter side of the meeting.

Michigan Association.

Detroit, in the opinion of the members of the Michigan Pharmaceutical Association, which met there June 22d to 24th, has reason to boast of its qualifications as a convention city—it certainly made good to the drug men.

Legislation, accomplished, hindered and unaccomplished formed the chief topic in the address of President M. A. Jones, of Lansing. The pharmacological phase of the liquor question under the new State local option law was touched upon by the president and came up for discussion later, after the report of the legislative committee, read by A. L. Walker. The new anti-cocaine law and the State food and drugs act were also discussed in detail.

C. F. Mann, of Detroit, reported for the trustees of the Prescott memorial fund, and collected \$67 at the meeting. The association appropriated \$200 to the fund.

Prof. L. E. Sayre, of Lawrence, Kan., was a visitor to the meeting and spoke upon the liquor question from the Kansas viewpoint. A paper on "Local Option" was read by J. W. Cobb, of Birmingham. Other papers presented were: "Mailing Lists and How To Use Them," by A. G. Lyon, of Coldwater; "Side Lines in Pharmacy," by F. C. Cahow, of Reading; "Building of a Candy Business," by W. M. C. Scott, of Detroit; "Your Cigar Case as an Asset," by C. A. Weaver, of Detroit; and "Aspirin and Acetylsalicylic Acid," by J. O. Schlatterbeck and A. W. Linton.

Officers were elected as follows: President, E. J. Rodgers, of Port Huron; vice-presidents, R. B. Campbell, of Three Rivers; T. A. Goodwin, of Ithaca; and O. A. Fanchboner, of Grand Rapids; secretary, E. E. Calkins, of Ann Arbor; treasurer, Willis Leisenring, of Pontiac; executive committee, M. A. Jones, of Lansing; C. A. Weaver, of Detroit; A. G. Lyon, of Coldwater; Martin Goodale, of Battle Creek; and F. C. Cahow, of Reading; delegates to the meeting of the National Association of Retail Druggists, E. E. Calkins, of Ann Arbor; and Charles Frantz, of Bay City.

Minnesota Association.

Although it was formed in 1883, no annual meeting of the Minnesota Pharmaceutical Association was held until two years later, so that this year marked the silver jubilee of the organization, and the event was duly celebrated at the meeting held June 16th to 18th, at Tonka Bay. At the end of its first quarter-century the association, according to the report of Secretary T. F. Leeb, of Winona, had reached a membership of 502. To this were added 39 new members at this year's meeting.

Treasurer L. J. Aberwald, of St. Paul, reported that the association started out on its second quarter-century with \$94 in its pocket.

Too much apathy toward matters legislative exists among the druggists of the State was the opinion expressed in the annual message of President G. H. Goodrich, of Anoka. He called upon them to rouse and rally, and recommended that the legislative committee be better equipped financially. He praised the progressiveness of the college of pharmacy and urged pharmacists to take up post-graduate work when possible. The board of pharmacy and the co-operative manufacturing concern allied with the association were highly commended in the address. Propagandic work, fire insurance and a larger association were his other topics.

The committee to whom the president's address was referred endorsed his recommendations, and in turn recommended that 20 per cent. of the annual dues collected be appropriated for the use of the legislative committee. The position taken by the committee was approved by the association.

Mr. Whipple, of the organization force of the National Association of Retail Druggists spoke about the propagandic work of the N. A. R. D., and the use for a country-wide campaign against the traveling pedler of drugs. The Minnesota association re-affirmed its allegiance to the N. A. R. D. and will send three delegates to the 1909 meeting. Co-operation with other mercantile organizations was decided upon, with the intention of combatting the itinerant vender evil.

Stewart Gamble read the report of the committee on legislation. The report of the committee on adulterations was read by G. Bachman. C. H. Huhn reported for the committee on fire insurance.

Addresses were made by Prof. F. J. Wulling, W. G. Noyes, Hon. Donald Robertson, and Dr. Brown, of the University of Minnesota.

H. W. Rietzke, J. P. Jelinek and C. F. Rutherford, all

of St. Paul; A. J. Kline, of Minneapolis; and H. T. Holverson, of Alexandria, were nominated for the consideration of the governor in his selection of a member of the board of pharmacy.

Officers were elected as follows: President, A. D. Thompson, of Minneapolis; vice-presidents, J. P. Jelinek, of St. Paul; K. G. Skartum, of Lake Benton; and Truman Griffin, of Minneapolis; secretary, T. F. Leeb, of Winona; treasurer, L. J. Aberwald, of St. Paul; executive committee, A. C. Le Richeux, of Duluth; J. F. Danek, of Minneapolis; and H. T. Holverson, of Alexandria.

Mississippi Association.

Twenty-nine names were added to the membership roll of the Mississippi Pharmaceutical Association at the seventh annual meeting held June 17th and 18th, at Vicksburg. Five persons were elected to honorary membership.

The legislative committee was instructed to use its efforts to have the extra tax on caffeine soda-fountain drinks removed.

Papers were read as follows: "The Prescription Case," by J. G. McGee, of Jackson; "Sunday Closing," by J. F. Norwood, of Tylertown; "The Promiscuous Use of Proprietarys by the Medical Profession," by A. Fly, of McComb City; and "Education as a Prerequisite to Board Examination," by A. S. Coody, of Osyka.

For the ensuing year the association elected the following officers: President, A. S. Coody, of Osyka; vice-presidents, Steven Platt, of Vicksburg; and A. P. Craig, of Indianola; secretary, O. W. Bethea, of Meridian; treasurer, J. W. McCorkle, of Meridian; executive committee, A. H. Bradshaw, of Summit; A. Fly, of McComb City; and B. L. Clark, of Kosciusko.

Next year's meeting will be held at Natchez.

Missouri Association.

Eighty pharmacists, sixty-six salesmen and about one hundred visitors were attracted to Joplin, by the thirty-first annual meeting of the Missouri Pharmaceutical Association held there June 15th to 18th. The membership roll was increased by 106 new names.

No other topic occasioned so much discussion as did the new State pharmacy law. This differs little from the old law in any material portion, with the exception that re-registration is provided for, and the grade of assistant pharmacist established.

Much interest was manifested in the reading of the following papers: "Can Drug-Store Hours Be Shortened and Sunday Closing Extended," by H. O. A. Huegel, of St. Louis; and F. G. Uhlich, of St. Louis; "General Replies to Questions Submitted by the Committee on Papers and Queries," by J. G. Geiwitz, of St. Joseph; "Our Past Presidents," by F. R. Dimmit, of Kansas City; "Suggestions on Membership," by C. E. Meyer; "The 1883 Meeting of the Missouri Pharmaceutical Association," by Dr. H. M. Whelpley, of St. Louis; "Suggestions Wanted for Our New Board of Pharmacy," by Francis Hemm, of St. Louis; and H. W. Servant, of Sedalia; "Mexican Medicine," by J. F. Llewellyn, of Mexico (Mo.); "What Constitutes a Reputable College of Pharmacy from the Viewpoint of the Missouri Pharmaceutical Association?" by L. R. Suppan, of St. Louis; "Is Commercial Pharmacy Instruction in Our Colleges Doing Good?" by L. Lieberstein, of St. Louis; and "The 1884 Meeting of the Missouri Pharmaceutical Association," by Dr. H. M. Whelpley.

In addition to that of A. Brandenberger, of Jefferson City, the outgoing member, the names of William Mittelbach, of Booneville; W. C. Bender, of St. Joseph; C. E. Zinn, of Kansas City; and Frank Edel, of Carthage, will be submitted to the governor for his consideration in selecting a member of the board of pharmacy.

Officers were elected as follows: President, W. K. Ilhardt, of St. Louis; vice-presidents, A. Burvenich, of St. Joseph; H. O. A. Huegel, of St. Louis; and W. J. Leffen, of Joplin; treasurer, William Mittelbach, of Booneville; permanent secretary, H. M. Whelpley, of St. Louis; assistant secretary, W. C. Bender, of St. Louis; local secretary, E. G. Orear, of Maryville; council, D. V. Whitney, of Kansas City; C. L. Wright, of Webb City; W. H. Lamont, of St. Louis; P. L. Hess, of Kansas City; O. F. Claus, of St. Louis; (the president, permanent secretary and treasurer are members ex-officio.)

The next meeting will be held at Maryville, June 14th to 16th, 1910.

Nebraska Association.

Mayor Love, of Lincoln, welcomed with some good advice the Nebraska Pharmaceutical Association, which met at that city, June 15th to 17th. He urged the druggists to purge their ranks of the sellers of habit-forming drugs, and called upon them to keep the drug trade free from the taint of liquor selling.

Governor Shallenberger, Food Commissioner Mains and State Chemist Redfern addressed the meeting, dwelling particularly upon the working of the State pure food and drugs law and pure paint law.

President O. W. Beckwith, of Beatrice, in his annual address, made a plea for a shorter drug-store day.

Prof. H. P. Hynson, of Baltimore, Md., delivered an address on "The Pharmacopoeia and the National Formulary," and was elected an honorary member of the association. There was a paper on the necessity of pharmaceutical education, by Dr. R. A. Lyman, of the University of Nebraska school of pharmacy; another by Frank McBride, a ten-year-old drug clerk; and one by Dr. Minnick, of Palmer, touching on the question of the scarcity of clerks.

The legislative committee was advised to work for the enactment of a law prohibiting the refilling of prescriptions calling for habit-forming drugs; and one levying a tax of \$100 per month on traveling medicine peddlers.

A. M. Bradshaw, D. P. Killen and George Jerome were recommended to the governor as properly qualified board of pharmacy timber.

Delegates were appointed as follows: To the 1909 meeting of the American Pharmaceutical Association, E. H. Dart, Frank Pease, C. L. Kreitzinger, J. L. Frater and R. A. Lyman; to the 1910 Pharmacopoeial Convention, C. R. Sherman, A. V. Pease and N. P. Hansen.

The following officers were elected: President, D. J. Fink, of Holdrege; vice-presidents, Fred Laffin, J. E. Harper, F. Hinkle, A. L. Gordon, and R. A. Lyman; secretary, J. D. McBride, of Stella; and treasurer, D. D. Adams, of Nehawka.

New Hampshire Association.

The attendance at the thirty-sixth annual meeting of the New Hampshire Pharmaceutical Association held at The Weirs, June 29th and 30th, was not so large as at some former conventions, but in many respects the meeting was the most successful the association has ever held.

In his annual address, President G. A. Gilmore, of Epping, gave a review of the work done during the year; commended the legislative committee for its work; and recommended that the association continue its affiliation with the National Association of Retail Druggists and send a delegate to its annual convention. He spoke heartily in favor of the propaganda and urged every one to take part in it.

The reports of Secretary H. E. Rice, of Nashua, and Treasurer S. H. Bell, of Derry, showed that the affairs of the association were in a satisfactory condition. Secretary Rice also presented a report as delegate to the N. A. R. D. convention. C. G. Shedd presented the report of the legislative committee.

One session was devoted to every-day drug-store business topics. Secretary Rice read a paper entitled "What's the Matter with the Drug Business?" also a paper on "Propaganda." These were freely discussed, and a most interesting talk on prescription and drug prices, "own-make" preparations, etc., was indulged in.

On the entertainment program were cards, legerdemain, boating, dancing and trolleying as adjuncts to the annual banquet.

It was voted to continue affiliation with the N. A. R. D. and to send a delegate to the 1909 meeting.

Officers were elected as follows: President, E. M. Allen, of Canaan; vice-presidents, C. J. Whiting, of Raymond; and C. G. Shedd, of Keene; secretary, H. E. Rice, of Nashua; treasurer, S. H. Bell, of Derry; auditor, J. H. Marshall, of Manchester; executive committee, E. C. Bean, of Belmont; H. E. Dunnington, of Manchester; and H. E. Rice, of Nashua.

North Carolina Association.

In the history of the North Carolina Pharmaceutical Association there was never another meeting so largely attended as was the thirtieth annual convention at Greensboro, June 23d to 25th. Not the least reason for the large attendance was the presence of President-elect H. H. Rusby of the American Pharmaceutical Association, who

was given the privilege of the floor and took part in the deliberations of the association; he also entertained those in attendance with an illustrated lecture entitled "Across South America with Mule and Canoe." Dr. Rusby was made an honorary member of the association.

Many interesting papers were read and discussed.

The association voted to continue its affiliation with the National Association of Retail Druggists.

Higher educational qualifications for applicants for registration as pharmacists were favored in a resolution adopted at this meeting.

There was a barbecue and Brunswick stew for the satisfaction of the inner man.

The following are the new officers: President, G. Y. Watson, of Southport; vice-presidents, I. W. Rose, of Rocky Mount; M. T. Payne, of Greensboro; and G. A. Matton, of High Point; secretary, P. W. Vaughan, of Durham; treasurer, G. K. Grantham, of Dunn; executive committee, J. P. Stowe, E. R. Thomas, J. A. Hood and Howard Gardner; and local secretary, J. P. Woodsall, of Charlotte.

The 1910 meeting will be held at Charlotte, June 15th to 17th.

Ohio Association.

T. B. Huston, who had been elected president of the Ohio Pharmaceutical Association at the 1908 meeting, became a resident of Cuba in the meantime and Vice-President C. L. Perry, of Peebles, occupied the chair during the thirty-first annual meeting held at Cedar Point, July 14th to 16th. Some 400 persons attended this meeting, there being about 100 present at every session.

Treasurer J. H. Von Stein, of Sandusky, reported the gratifying balance on hand of \$1,432.77.

The report of Secretary T. D. Wetterstroem, of Cincinnati, showed that the association had made a large increase in membership, a total of 435 having been added during the year. The total membership is 1,124, with 931 in good standing. Six deaths were reported, as were also eight resignations and the dropping of thirty from the roll for non-payment of dues. A recommendation to mail the Proceedings only to members who have paid their dues for the current year was not approved.

Food and Drug Commissioner Dunlap outlined his policy in the conduct of his office and stated that he would expect all drugs and medicines coming under the misbranding clause of the food and drugs act to be properly labeled as to their alcoholic or habit-forming-drug content by January 1st, 1910. The statement of the alcoholic content should be exact, he said, and not "about" or "approximately" so much; he will permit a reasonable deviation from the stated quantity. Commissioner Dunlap's policy was commended and endorsed, and the thanks of the association were given to him.

Mr. McIntire, the new drug inspector, discussed at length county organization. This matter was referred to a committee to report to the council the advisability of organizing county branches of the State association, the council to report to the association at its next annual convention.

The following papers were read: "A Few Observations at the Prescription Counter," by W. E. Kaemmerer; "Pharmacy as a Science," by L. H. Witte; "Formaldehyde Test," by G. D. Beal; "Note on Alkaline Antiseptic Solution," by Prof. H. V. Arny; "Powdered Asafetida," by Azor Thurston; "The Drug Store Cow," by Prof. Joseph Feil; "Should Drugs Used by Physicians be Required to Comply with Legal Standards?" by C. M. Shafer; and "County Organization," by C. S. Ashbrook.

The report on adulteration and sophistication presented by Prof. Arny was interesting and brought out considerable discussion. It was composed of three parts: condition of the drug market, by Prof. Arny; drug adulteration, by Azor Thurston; and codeine sulphate tablet triturations and mail order drugs, by T. D. Wetterstroem.

It was resolved (1) that the association co-operate with the food and drug commissioner in the proper labeling of "patent" and proprietary medicines; (2) that assistance be given to the local committee on pharmacopoeial revision; (3) that the National Association of Retail Druggists be endorsed and supported; (4) that the Wampole letter anent the practice of substitution by druggists be condemned; (5) that the board of pharmacy be supported in the enforcement of certain laws; and (6) that the thanks of the association be voted to Governor Harmon for his recognition of the recommendations of the State association in his selection of members of the board of pharmacy.

Two resolutions were referred to a special committee:

one having to do with the recognition of traveling men as members of the association; the other dealing with the question of the use of sodium benzoate and other preservatives in food-stuffs.

A resolution favoring the enactment of an amendment to the pharmacy law, making a diploma from a school of pharmacy a prerequisite of application for registration, failed of adoption, by a few votes.

M. G. Tielke, of Cleveland; Frank Amann, of Portsmouth; E. C. Davis, of Akron; W. C. Koonen, of Canton; and W. P. Jenkins, of Dayton, were recommended to the governor for his consideration in appointing a member of the board of pharmacy to succeed Mr. Tielke.

Officers and delegates were elected as follows: President, C. S. Ashbrook, of Mansfield; vice-presidents, J. G. Schnuerer, of Cleveland; and J. J. Hauss, of St. Mary's; treasurer, J. H. Von Stein, of Upper Sandusky; secretary, T. D. Wetterstroem, of Cincinnati; and member of council, L. A. Biehl, of Sandusky; delegates to the Pharmacopoeial Revision Convention, L. C. Hopp, T. D. Wetterstroem and G. B. Topping; delegates to the meeting of the American Pharmaceutical Association, C. T. Elder, C. W. Tobey, Azor Thurston, J. H. Beal and G. B. Kauffman.

The next meeting will be held at Cedar Point, July 12th to 15th.

Pennsylvania Association.

Bedford was the scene of the thirty-second annual meeting of the Pennsylvania Pharmaceutical Association, held June 22d to 24th. The meeting was very well attended, an unusually large number of ladies being present, as well as many new members who went to a meeting this year for the first time. An address of welcome was delivered by Congressman John M. Reynolds.

The executive committee in their report turned in the names of 127 new members, this being the largest number of accessions to the membership during any one year for five years, and the third largest in the history of the association.

One of the main features of the meeting was a strong and able address by President Walton, who has presided over the association during a trying year in which unusual efforts were necessary to keep the pharmacists of Pennsylvania from being harassed by unnecessary legislation. The president took advanced ground regarding the sale of morphine and opium, recommending that a bill be drawn providing for closer restriction and regulation. He also recommended that the entertainment committee be provided with funds sufficient to cover the cost of the entertainments at the meetings to the end that begging from wholesalers and others for this purpose should cease. He also recommended an appointment of a committee on U. S. P. and N. F. propaganda with the special duty of assisting county and local organizations when called upon, and to prepare the display of U. S. P. and N. F. preparations for use at the Pennsylvania medical meeting. Another recommendation of President Walton was that the association re-affirm its affiliation with the National Association of Retail Druggists, and this was unanimously approved.

The review of the growth of the Pennsylvania Pharmaceutical Association, contained in President Walton's address, presented very interesting features, showing a great increase in the membership of this association in recent years. In 1902 the membership was 359, the number of papers read at the annual meeting was nineteen, and the balance in the treasury was \$78. In 1908 the membership was over one thousand, the number of papers presented was fifty, and the cash balance on hand \$1,574.09, and the attendance at last year's meeting was the largest on record.

Secretary Potts, of the N. A. R. D., who was present, gave a very complete outline of the aims and purpose of the national association, taking up particularly the U. S. P. and N. F. propaganda.

The report of the legislative committee showed the passage of a pure drug law based upon the national law, and a new cocaine law which is quite drastic. The report of this committee proved to be the storm center of the meeting, some of the members taking exception to the work of the committee, claiming that it was a mistake to allow the variations in strength of official preparations which are allowed in the national law and which were incorporated in the Pennsylvania law. However, the report was accepted with the thanks of the association.

The work of the committee on papers and queries,

Charles H. LaWall, chairman, was particularly meritorious, over forty papers being presented at the meeting, twenty-two of which were read. Among these were papers on legislative matters by Louis Emanuel, H. C. Blair and Louis Saalbach. Other papers which attracted considerable attention were: "The Fluidextract Question," by Frederick J. Blumenschein; "The Assay and Standardizing of the U. S. P. Preparations," by Leo Eliel; "Concerning the Increase of Proprietary Preparations," by William M. Latou; "Lest We Forget," by Prof. C. Lewis Diehl; "Formulas for Some New Basic Elixirs," by George M. Beringer; "Elixir of Gentian N. F.," by George M. Beringer; "The House Divided," by J. Leyden White; "Revision of the Pharmacopœia Every Five Years," by R. H. Lackey; "Some of the Properties of Cadmium," by H. C. Deming; "Standardization the Basis of Professional Pharmacy," by F. E. Stewart; "The Pharmaceutical Journals, Where Are They At?" by B. E. Pritchard; "Clinical Laboratory Work," by Henry C. Blair; "The Quality of Pharmaceuticals," by W. A. Pierson; "On the Commencement of Business," by J. B. Moore; "The Shut-Ins in Drug Stores," by William G. Greenwalt; and "The Solubility of Official Substances," by M. I. Wilbert. A comprehensive paper on the copyright, patent, and trade-mark questions, by F. E. Stewart, was also one of the features of the meeting.

Special obituary services were held in memory of the late Jacob H. Stein, of Reading, and the late Jacob H. Redsecker, of Lebanon, two of the charter members and ex-presidents of the association. Touching tributes were paid to the memory of these departed ones whose influence on pharmacy will live long after them.

Comprehensive reports were received from the committees on trade interests and adulteration.

The officers elected for the coming year were as follows: President, John C. Wallace, of New Castle; vice-presidents, Theodore Campbell, of Philadelphia, and Charles R. Rhodes, of Hyndman; secretary, Edgar F. Heffner, of Lock Haven; treasurer, Joseph L. Lemberger, of Lebanon; executive committee, Louis Saalbach, of Pittsburg; Louis Frank, of Wilkes-Barre; and H. W. Skinner, of Chambersburg; local secretary, Howard J. Mentzer, of Blue Ridge Summit. Lucius L. Walton, of Williamsport, and M. N. Kline and W. L. Cliffe, of Philadelphia, were elected delegates to the 1910 pharmacopœial convention, with D. J. Thomas, of Scranton, and C. B. Lowe, of Philadelphia, as alternates.

Strong resolutions endorsing the course of Dr. H. W. Wiley, chief chemist of the United States department of agriculture, were passed, and the great good done for the American consumer by the work of Dr. Wiley was commended. Governor Stuart and Senator Gerberch were also commended for the help they gave toward defeating the imitation-whisky bill.

The next annual meeting will be held at Buena Vista Springs, June 28th to 30th.

Strong resolutions were adopted condemning the bar tender masquerading as a drug store proprietor.

The meeting closed with the presentation of prizes won by the ladies at the different contests during the meeting, and the installation of the newly elected officers, during which a high tribute was paid to the character and work of the retiring president by his successor.

The entertainment program was the best ever provided by the "three busy bees," Bransome, Byers and Busch. It consisted of a splendid family dinner on Tuesday evening, with special musical features, a masquerade ball on Wednesday evening, and a dance on Thursday. Tallyho parties, automobile rides, card games, and other amusements helped to fill in the time for the ladies attending the meeting.

South Carolina Association.

About 100 members of the South Carolina Pharmaceutical Association attended the thirty-third annual meeting held July 7th to 9th, at Anderson. For results, too, this meeting was noteworthy.

S. C. Hodges reported for the committee on legislation, expressing the belief that the State legislature at its next session would enact the pharmacy law endorsed by the association.

The question of the advisability of organizing county branches of the association was discussed with much interest. The project was endorsed.

A motion was carried, to the effect that each druggist

in the State be assessed \$3 annually to defray the expenses of a secretary for the board of pharmacy, who should canvass the State for the purpose of discovering whether the pharmacy law was being complied with.

Among the papers read were the following: "Ice Cream," by Edward Hahn, of Charleston; "Practical Operation of a Soda Fountain," by O. E. Thomas, of Columbia; and P. L. Barr, of Anderson; "How to Operate a Drug Store," by G. W. Evans, of Anderson; "Relation of Pharmacist to Physician," by F. M. Smith, of Charleston; "A Plea for Botany and Pharmacognosy," by W. H. Zeigler, of Charleston; "By What Means Can We Elevate the Pharmacist's Profession?" by A. A. Coleman, of Greenwood; and "The Relation of the Employer to the Employee," by W. H. Zeigler, of Charleston.

One of the most significant actions of the meeting was the adopting of the following preamble and resolutions:

Whereas, it has come to the attention of the members of the South Carolina Pharmaceutical Association that there is some probability of our next legislature, on account of the counties going dry, placing intoxicating beverages for sale in the hands of the druggists of this State.

Therefore, we in convention assembled at Anderson, South Carolina, put ourselves on record as opposing any law that tends to put in the hands of the druggists the sale of intoxicating liquors, or beverages of any kind, or the responsibility of the sale of same.

Resolved, further, that we instruct our legislative committee to do all in its power to prevent such legislation.

Resolved, that a copy of these resolutions be printed in all the daily papers of the State in order that our position may not be misunderstood.

Thirty-seven new members were enrolled during the meeting.

Delegates were appointed as follows: To the meeting of the American Pharmaceutical Association, W. H. Zeigler, W. C. De Lorme and A. B. Carpenter; to the meeting of the National Association of Retail Druggists, O. A. Matthews.

A smoker-session was held on one evening; and the final session was in the nature of a banquet.

These are the officers for the ensuing year: President, M. H. Sandifer, of Rock Hill; vice-presidents, G. W. Evans, of Anderson; and S. C. Hodges, of Greenwood; and secretary and treasurer, F. M. Smith, of Charleston.

L. P. Fouche, of Anderson, was elected a member of the board of pharmacy; and W. W. Dodson, of Laurens, a member of the board of health.

Glenn Springs was selected as the 1910 meeting place.

Texas Association.

What was perhaps the largest gathering of members of the Texas Pharmaceutical Association thronged historic San Antonio during the thirtieth annual convention held June 15th to 17th. Considered from any side the meeting was one of the most eventful in the history of the association.

A notable gain in membership was made at this meeting, 122 new members being enrolled.

In the reports of the officers and in the discussions on the floor the need for some restrictive legislation to check the growing evil of the itinerant pedler of medicines was impressed upon the members. The association will renew its efforts of last year to secure such legislation. The conditions will be explained to the public and petitions to the legislature sent out for signatures.

E. G. Eberle, of Dallas, addressed the meeting on the subject of pharmacal testing, giving a number of practical demonstrations. Profs. R. R. D. Cline, of the State University, and C. S. N. Hallberg, of Chicago, discussed this topic.

Prof. Hallberg spoke of the desirability of co-operation between pharmacists and physicians in eliminating secret medicaments. Prof. Hallberg was made an honorary member of the association.

The report of R. H. Walker, of Gonzales, as secretary of the board of pharmacy, was received with great approval.

The governor will appoint a new board of pharmacy this year, and for his consideration in selecting the members of the board, the association nominated Bruce Vredenburg, of Beaumont; J. T. Coulson, of Corsicana; R. B. Richter, of New Braunfels; W. H. Cousins, of Munday; R. S. Duner, of Elgin; Paul Breyman, of Schulenberg; B. B. Treadwell, of Uvalde; J. A. Weeks, of Ballinger; T. J. Snell, of Cooper; and W. F. Robertson, of Gonzales.

For the entertainment of the visitors San Antonio drugdom had extended itself lavishly. There were trolley

rides, parkings, musical and vaudeville entertainments and a barbecue.

The following officers were elected: President, R. H. Walker, of Gonzales; vice-presidents, H. C. Jackson, of Austin; F. A. Chapa, of San Antonio; and H. V. Schumann, of New Braunfels; secretary and treasurer, E. G. Eberle, of Dallas; home secretary, H. L. Carleton, of Austin; local secretary, J. W. Covert, of Fort Worth; historian, Miss C. A. Shipe, of Austin; and trustee, W. H. Cousins, of Munday.

Fort Worth will be the meeting place next year.

Vermont Association.

The members of the Vermont Pharmaceutical Association were so pleased with their stay at Lake Bomoseen, June 22d to 24th, that it was unanimously decided to meet there again next year.

Much thought and a wide acquaintance with pharmaceutical matters of import were evident in the annual address of President W. R. Warner, of Vergennes. He urged the development of the commercial side of pharmacy as a means of combatting the inroads of mail-order houses and peddlers. Commercialism and professional pharmacy are possible allies in his opinion. Counter-prescribing he condemned roundly. Legislation received particular attention, and he lauded the work of the 1908 legislative committee, and urged the druggist to take a more active interest in politics.

Dr. J. A. Mead, the lieutenant-governor of the State, spoke of the need of co-operation between pharmacists and physicians. The Doctor was elected to honorary membership in the association. So, too, was Dr. W. D. Grace, of Portsmouth, N. H.

The membership of the association, as reported by Secretary W. E. Terrill, of Montpelier, was 323. Thirty-five new members were enrolled during the meeting.

Treasurer J. M. Taylor, of Bradford, reported a balance on hand of \$33.48.

Three papers on "Propaganda Work" were read; the authors were Dr. Tobin, of Bristol; A. L. Cheney, of Morrisville; and L. J. Trudel, of Rutland. F. J. Kline, of Bartons Landing, read a very able paper on "Should Druggists Handle Liquor when They Have the Legal Right? How It Affects Business."

There was a very intense discussion of a suggestion made by President Warner to the effect that an effort should be made to secure for the association some voice in the selection of the men to be appointed by the governor to the board of pharmacy. The matter was finally left to the legislative committee.

The entertainment features of the meeting were most enjoyable.

The new officers are: President, A. L. Cheney, of Morrisville; vice-presidents, J. G. Bellrose, of Burlington; G. C. Smith, of South Londonderry; and Elizabeth Gregg, of Bennington; secretary, W. E. Terrill, of Montpelier; and treasurer, J. M. Taylor, of Bradford.

Virginia Association.

This year the Virginians stayed at home, the twenty-eighth annual meeting of the Virginia Pharmaceutical Association being held at the scenic Natural Bridge, July 6th to 8th. The attendance was the largest in the history of the organization.

Secretary C. B. Fleet, of Lynchburg, reported a membership of 218. Thirty-odd druggists were elected to membership at the meeting.

The report of Treasurer H. S. Eley, of Suffolk, showed the association to be in a gratifying state financially.

Much of the discussion at the sessions was devoted to the question of liquor-selling by druggists, and the sale of narcotics. A firm stand against the sale of alcoholics was taken, and the enactment of a law placing close restrictions upon it will be striven for. It was the consensus of opinion that the sale of narcotics is decreasing.

Appropriate resolutions were adopted in memory of the late G. J. Seabury, of New York, an honorary member, and W. H. Scott, of Richmond.

The following papers were read: "Gravel and Grit," by A. H. Robins; and "Business in Reagents and Bacterial Stains," by Gordon Blair.

J. E. Jackson, J. L. Hagan, J. P. Jones, W. H. Sheppe and G. A. Van Lear were selected for recommendation to the governor for his consideration in naming a member of the board of pharmacy.

On the pleasurable side of the meeting were a variety

of athletic contests, and an entertainment by the indispensable Polk Miller.

Officers were elected as follows: President, G. A. Van Lear, of Roanoke; vice-presidents, H. R. McKay, of Luray; and W. L. Lyle, of Bedford City; secretary, C. B. Fleet, of Lynchburg; treasurer, H. S. Eley, of Suffolk; executive committee, H. C. Barnes, of Roanoke; W. M. Stokes, of Lynchburg; and H. C. Littlejohn, of Leesburg.

Wisconsin Association.

The twenty-ninth annual meeting of the Wisconsin Pharmaceutical Association was held at Elkhart Lake, June 22d to 24th.

The annual address of President W. W. Albers, of Wausau, contained a very urgent appeal to the druggists of the State to enroll in the association so as to give it a better standing before the State legislature. Better support was asked for the propagandic work of the association and the members were advised to grasp the opportunity offered by this work for assisting the physician. The president favored redoubled efforts to secure the enactment of a law imposing a tax on traveling medicine peddlers. He also was in favor of the appointment of a pharmacist on the board of regents of the University of Wisconsin. It was his belief that the school of pharmacy should receive more attention from the association and druggists in general. He did not favor the free distribution of antitoxic serums by the board of health.

Two hundred and seventy-seven was the number of members reported by Secretary E. B. Heimstreet, of Janesville. To this were added about sixty secured at the meeting.

A balance of \$221.35 was reported in the hands of Treasurer W. P. Clarke, of Milton.

Interesting reports were made by the propaganda committee, the legislative committee, and various delegates. The sessions were enlivened by several good discussions.

The entertainment features were particularly pleasing, being largely under the auspices of the travelers' auxiliary. This organization published accounts of the sessions and numerous personals in a daily paper the *Daily Pill*.

The officers elected for the ensuing year are: President, F. M. Charlesworth, of Kaukauna; vice-presidents, O. P. Erhart, of La Crosse; and M. C. Trayser, of New London; secretary, E. B. Heimstreet, of Janesville; treasurer, W. P. Clarke, of Milton; and local secretary, W. H. Barr, of Milwaukee.

Virginia Association of Graduate Pharmacists.

A new pharmaceutical organization with the stated purpose of elevating the educational qualifications of the pharmacists of the State was recently organized at Richmond, Va. The new organization has taken the name the Virginia Association of Graduate Pharmacists. Membership is limited to the graduates of reputable colleges of pharmacy, no other requirements being necessary.

The present officers are: President, H. G. Whitehead; vice-president, A. E. Dorsey; secretary, W. F. Rudd; treasurer, Maude Lambert; executive committee, N. T. Ennett, Rea Parker, and W. F. Rudd.

An exciting incident of the 1909 meeting of the Maryland Pharmaceutical Association at Ocean City was the narrow escape from drowning of Prof. Daniel Base, of the Department of Pharmacy, University of Maryland. Prof. Base had ventured in too far and was being carried out by the strong undertow, when J. E. Hengst and H. A. B. Dunning went to his rescue, and brought him ashore, not without considerable trouble.

An active campaign to secure new members is being carried on by the Philadelphia Drug Club, the proper maintenance of the organization necessitating a large membership. Two special committees on membership have been appointed. One will canvass the retail trade, and the other will call upon the wholesalers and endeavor to interest them in the benefits of the club.

The firm of Connolly & Davis, of Dorchester, Mass., was dissolved June 14th. F. W. Connolly will operate the store at Field's Corner; and C. H. Davis is now the proprietor of the store at 760 Washington street, and the one at Neponset.

The Georgia Board of Pharmacy and the Savannah Retail Druggists' Association are co-operating with the State chemist and the commissioner of agriculture to secure the enactment of a law that will restrict the sale of phenol.

News of the Pharmacy Boards.

List of Secretaries.

In the following list are to be found the names and addresses of the secretaries of the various boards of pharmacy of the country. When the date and place of the next meeting are known they are given also. Secretaries are requested to keep us informed as to dates and places.

- ALABAMA—E. P. Galt, Selma.
 ARIZONA—November 10th, at Phoenix. A. G. Hulett, Phoenix.
 ARKANSAS—J. F. Dowdy, Little Rock.
 CALIFORNIA—Louis Zeh, San Francisco.
 COLORADO—S. L. Bresler, Denver.
 CONNECTICUT—September 7th, at Hartford. J. A. Levery, Bridgeport.
 DELAWARE—O. C. Draper, Wilmington.
 DISTRICT OF COLUMBIA—October 14th and 15th, at Washington. S. L. Hilton, Washington.
 FLORIDA—D. W. Ramsaur, Palatka.
 GEORGIA—C. D. Jordan, Monticello.
 IDAHO—T. M. Starrh, Shoshone.
 ILLINOIS—F. C. Dodds, Springfield.
 INDIANA—October 12th and 13th, at Indianapolis. A. F. Heineman, Valparaiso.
 IOWA—August 3d, at Des Moines. C. W. Larson, Des Moines.
 KANSAS—August 25th, at Ellsworth. W. E. Sherriff, Ellsworth.
 KENTUCKY—J. W. Gayle, Frankfort.
 LOUISIANA—August 6th and 7th, at New Orleans. Fred Earhart, New Orleans.
 MAINE—F. A. Wilson, Brunswick.
 MARYLAND—December 28th and 29th, at Baltimore. Ephraim Bacon, Baltimore.
 MASSACHUSETTS—Every Tuesday between September 1st and July 1st, at Boston. C. F. Ripley, Boston.
 MICHIGAN—August 17th to 19th, at Sault Ste. Marie. J. D. Muir, Grand Rapids.
 MINNESOTA—October 18th, at Minneapolis. C. T. Heller, Minneapolis.
 MISSISSIPPI—October 5th, at Jackson. L. H. Wilkinson, Indianola.
 MISSOURI—October 11th, at St. Louis. Charles Gietner, St. Louis.
 MONTANA—October, —, at Helena. S. J. Coffee, Missoula.
 NEBRASKA—C. R. Sherman, Omaha.
 NEW HAMPSHIRE—F. H. Wingate, Nashua.
 NEW JERSEY—October 21st and 22d, at Trenton. H. A. Jorden, Bridgeton.
 NEW MEXICO—A. J. Fischer, Santa Fe.
 NEVADA—R. L. Prouty, Tonopah.
 NEW YORK—Eastern Branch—September 15th and 16th, at Brooklyn. Joseph Weinstein, 115 West Sixty-eighth street, New York. Middle Branch—September 15th and 16th, at Albany. W. L. Bradt, Albany. Western Branch—September 15th and 16th, at Buffalo. George Reimann, Buffalo.
 NORTH CAROLINA—November 23d, at Raleigh. F. W. Hancock, Oxford.
 NORTH DAKOTA—October 18th, at Fargo. W. S. Parker, Lisbon.
 OHIO—October 12th and 13th, at Columbus. F. H. Frost, Columbus.
 OKLAHOMA—J. C. Burton, Stroud.
 OREGON—September 6th and 7th, at Portland. C. G. Huntley, Oregon City.
 PENNSYLVANIA—August 18th and 19th, at Williamsport. C. T. George, Harrisburg.
 RHODE ISLAND—October 5th, at Providence. J. E. Brennan, Pawtucket.
 SOUTH CAROLINA—F. M. Smith, Charleston.
 SOUTH DAKOTA—E. C. Bent, Dell Rapids.
 TENNESSEE—I. B. Clark, Nashville.
 TEXAS—September 21st, at Dallas. R. H. Walker, Gonzales.
 UTAH—W. H. Dayton, Salt Lake.
 VERMONT—D. F. Davis, Barre.
 VIRGINIA—October 26th, at Richmond. T. A. Miller, Richmond.
 WASHINGTON—P. Jensen, Tacoma.
 WEST VIRGINIA—October —, at Bluefield. A. Walker, Sutton.
 WISCONSIN—H. G. Ruenzel, Milwaukee.
 WYOMING—C. B. Gunnell, Evanston.

District of Columbia Board.

At the meeting of the District of Columbia Board of Pharmacy held July 8th and 9th, sixteen applicants for registration were examined. The following five passed:

W. C. Bateman, G. B. Bury, F. P. Carr, S. J. B. Collins and J. F. Emmons.

The next meeting of the board will be held October 14th and 15th.

Iowa Board.

Out of sixty-eight applicants for registration examined by the Iowa Board of Pharmacy at the meeting held June 1st, twenty-two were successful.

The next meeting of the board will be held August 3d, at Des Moines.

Maryland Board.

Forty-three applicants for registration were passed by the Maryland Board of Pharmacy at the meeting held June 3d and 4th, at Baltimore. Their names follow:

As pharmacists—Abraham Abelsky, Ada C. Albert, J. H. Allan, H. S. Bramber, D. W. Brown, O. B. Farow, J. L. Fitzgerald, W. F. Gakenheimer, E. M. Garrott, M. J. Goude-lock, B. A. Greene, W. W. Hall, H. C. Ivins, W. B. Jones, L. M. Kantner, George Kenyon, E. C. Kehr, Edith A. Kramer, R. H. Lehr, G. F. McKenzie, J. S. Sandler, G. J. Schneider, H. W. Smith, G. A. Stall, Michael Stefanski, E. B. Stolberg, W. W. Vogel, H. E. Wich, L. S. Williams, E. F. Winslow, H. E. Young and C. L. Ziegler.

As assistants—G. E. Bowman, W. M. Bray, Walter Brenton, W. F. Greene, J. F. Holden, O. L. Johnson, Daird Kirchner, W. R. Kolb, C. H. W. Oertel, J. L. S. Quinn and J. L. Renchan.

The next meeting of the board will be held at Baltimore, December 28th and 29th.

J. A. Davis, of Baltimore, will represent the board at the 1909 meeting of the National Association of Boards of Pharmacy.

Massachusetts Board.

Examinations were held by the Massachusetts Board of Pharmacy, June 7th, 8th, 14th, 15th, 21st, 29th and 30th, a total of 127 applicants being examined. Thirty-two were passed as pharmacists, and forty-nine as assistants. They are:

As pharmacists—Sister M. Alice, J. D. Crowley, Katherine M. Cullinen, E. A. Doyle, J. P. McHugh, J. F. Smith and A. P. Wood, all of Boston; T. L. Aiken, of Watertown; J. L. Aillery, of New Bedford; G. T. Bates, of Lynn; J. A. Burke, of Milford; W. E. Cunningham, of Lowell; P. L. Fox, of Holyoke; D. J. Gleason, of Worcester; A. E. Hemenway, of Medfield; H. L. Hussey, of Dover, N. H.; Vernon Laing, of Cambridge; F. A. Lavelle, of Somerville; H. A. Lewis, of Greenfield; R. E. Lyons, of Haverhill; J. J. McDonnell, of Westfield; F. G. Minter, of Medford; J. G. Molineaux, of North Cambridge; F. A. O'Reilly, of Lawrence; F. T. Quinn, of Lowell; E. L. Sargent, of Lakeport, N. H.; Jennie H. Sargent, of Everett; J. J. Sullivan, of Fitchburg; C. H. Upton, of Salem; G. A. Ware, of Malden; E. E. Wilkins, of Pittsfield; and W. E. Young, of Taunton.

As assistants—J. H. Ahern, Maurice Brody, C. M. Couyle, J. H. Dorsey, J. A. Flynn, Harry Ginsburg, Boris Goldberg, Sister M. Leonarda, F. D. B. Mitchell, A. J. O'Brien and R. B. Roger, all of Boston; G. A. Beane, of Lynn; H. B. Blanchard, of Somerville; Neil Blank, of Springfield; G. J. Boucher, of Fall River; B. M. Burke, of Newton; W. B. Burke, of Lowell; A. W. Carroll, of Winchendon; F. B. Chase, of Wollaston; J. F. Clerke, of Lawrence; W. G. Collagan, of West Newton; L. E. Comeau, of Gloucester; T. M. Conlon, of Leominster; F. C. Curley, of Holyoke; F. S. Delay, of Rockland; Robert Donnellan, of Lowell; G. H. Du Paw, of Malden; R. H. Estabrook, of Fitchburg; E. A. Ferguson, of Danvers; U. E. Fortier, of Springfield; C. W. Freeman, of Somerville; A. F. French, of Peabody; John Hansen, of Everett; G. M. Harris, of Arlington; W. A. Haslam, of Everett; F. H. Healey, of Clinton; John Hillery, of Somerville; A. B. Johnson, of Natick; E. T. Lee, of Beverly; Charles Leibel, of Malden; A. L. McGilvray, of Quincy; Saul Michelson, of Chelsea; P. P. Mitchell, of Marlboro; W. J. Murray, of Natick; H. W. Perry and H. I. Quennell, both of Somerville; Luigi Scelfo, of New-ark, N. J.; and G. E. Wildes, of Beverly.

The weekly meetings of the board, which have been discontinued during the summer, will be resumed September 7th.

Michigan Board.

Seventy-seven persons asking registration as pharmacists, and thirty-one, as druggists were examined by the Michigan Board of Pharmacy at the meeting held June 14th to 17th, at Star Island. Seventeen and seven, respectively, were successful; these are:

As pharmacists—J. M. Breyer, R. H. Curtiss, Joseph Durand, H. L. Guffin, W. A. Kaminski, C. M. Moncur, F. W. Werth and C. L. Williams, all of Detroit; A. V. Axelsson, of Hancock; O. H. Bauch, of Lansing; Benjamin Burkhead, of Traverse City; C. G. Cramer, of Saginaw; T. F. Cronkite, of Breckenridge; C. E. Curley, of Bay City; B. F. Hartford, of Marion; Clinton Horn, of Grawn; and C. J. Renkes, of Battle Creek.

As druggists—G. F. Gratton, H. E. Mudge and H. Van Norman, all of Detroit; J. R. Burt, of Ada; F. Goetz, of Forestville; R. Hams, of Grand Rapids; and W. J. Moore, of Port Huron.

The next meeting of the board will be held at Sault Ste. Marie, August 17th to 19th.

Missouri Board.

The Missouri Board of Pharmacy held a meeting at Joplin, June 14th, examining eighty-six applicants for registration. The following, forty-two in number, were successful:

Amos Alsobrock, of St. Louis; R. M. Baugham, of Warsaw; J. J. Bradley, of Higbee; C. S. Bradbury, of Joplin; F. H. Burk, of Sedalia; T. S. Combs, of Greenfield; A. H. Cox, of Monett; C. H. Craig, of Galena; A. A. Eberlein, of St. Louis; F. C. Evans, of Kansas City; H. W. Freeman, of Columbia; W. H. Gunther, of Carthage; E. L. Hagler, of Monett; N. H. Horn, of Joplin; Ada Hoover, of Kansas City; P. W. Hummee, of New Madrid; George Hunt, of Richmond; G. W. McClure, of Cassville; Everett McCool, of Joplin; E. G. McCrackin, of Webster Grove; Glenn McMichael, of Des Moines, Ia.; R. C. Mershon, of Kansas City; Edward Masplay, of Granby; D. E. Miller, of Monett; F. M. Miller, of Des Moines, Ia.; O. G. Moline, of Kansas City; T. H. Moore, of Nevada; Richard Morgan, of Fair Play; W. D. O'Neal, of Albany; J. K. Patterson, of St. Louis; J. L. Rosse, of Fayette; A. R. Sasse and M. S. Sattle, both of Kansas City; K. W. Smith, of Carthage; F. P. Soldan, of Macon; H. S. Stander, of St. Louis; C. G. Steinwell, of Richmond; Roy Sullens, of Webb City; W. E. Swan, of Troy; H. A. Walker, of Seligman; and J. J. Yates, of Webb City.

The next meeting of the board will be held October 11th, at St. Louis.

New York Board.

An examination was held by the Eastern branch of the New York Board of Pharmacy at this city, June 16th and 17th, at which twenty-three persons made application for registration. The following were successful:

L. R. Adams, Samuel Adler, C. W. Ballard, Leonard Di Nolfo, W. W. Geety, N. Y. Hull, T. A. Jost, Joseph Kaminsky, John Kindergarten, Charles Lutz, Philip Ohly, Charles Parker, Moses Sobel, E. F. Thode, P. H. Wagner and Cornelius Zeisler.

W. L. Bradt, of Albany, the general secretary of the board, was re-elected a member of the middle branch at the election held at Richfield Springs during the annual meeting of the New York Pharmaceutical Association.

L. W. Miller, of Niagara Falls, has been elected a member of the western branch to succeed H. M. Groves, of Batavia, whose term of office expires this year.

North Carolina Board.

At the meeting of the North Carolina Board of Pharmacy held June 21st, at Greensboro, the following applicants for registration passed the examination:

J. W. Biggs, of Williamston; S. O. Brown, of Raleigh; Roy Champion, of Greensboro; J. L. Cherry, of Raleigh; Myrtle H. Cox, of Wadesboro; B. T. Dawson, of Tarboro; C. W. Eason, of Statesville; D. A. Elvington, of Wilmington; S. B. Etheridge, of Edenton; R. C. Faulcener, of Greensboro; H. A. Griffin, of Rocky Mount; D. H. Hage, of Asheville; T. N. Harrison, of Littleton; A. A. James, of Winston-Salem; G. T. Jones, of Elizabeth City; J. R. Kelly, of Monroe; James Kerr, of Wilmington; D. C. Lisk, of Hamlet; J. U. Loftin, of Troy; C. A. Lord, of Wilmington; T. C. McIlhenny, of Greensboro; J. H. McLelland, of Mooresville; C. L. Mallette, of Rocky Mount; Norman Morrow, of Gastonia; S. P. Pemberton, of Troy; Clifford

Porter, of Concord; W. D. Preston, of Mt. Airy; R. C. Robertson, of Clayton; F. M. Salley, of Asheville; F. A. Sloan, of Monroe; J. F. Wagner, of Thomasville; Clara W. Whitehead, of Salisbury; and S. O. Yates, of Morrisville.

The next meeting of the board will be held November 23d, at Raleigh.

North Dakota Board.

Of the forty-two applicants for registration examined by the North Dakota Board of Pharmacy at the meeting held June 15th and 16th, at Fargo, nine were successful as pharmacists, and nine, as assistants. Those who passed are:

As pharmacists—A. S. Boyer, of Ready; C. E. Fleck, of Casselton; A. E. Foss, of Hatton; H. C. Hallderssen, of Park River; H. L. Hill, of Fargo; W. H. Humphrey, of Moorhead; O. F. Rose, of Grand Forks; Samuel Russell, of Thompson; and Otto Stensrud, of Beach.

As assistants—R. J. Beckwar, of Berthold; James Bennett, of Sanborn; C. A. Hagburg, of Dassel; W. J. Keefe, of Hettinger; W. A. Knoop, of Fargo; L. L. Larson, of Webster, S. D.; D. B. McDonald, of Edgemore; Albert Morin, of Walhalla; and R. A. Stieff, of Velva.

The next meeting of the board will be held at Fargo, October 18th.

Oregon Board.

There were fifty-four persons examined by the Oregon Board of Pharmacy at the meeting held June 8th and 9th, at Portland. The following passed:

As pharmacists—C. M. Brink, C. R. Chase, H. L. Christenson, R. H. Cody, E. H. Hatch, P. C. Rinehart, F. P. Schreiber and G. D. Stewart, all of Portland; E. E. Applewhite, of Roseburg; C. E. Barben, of Baker City; J. S. Chybke, of Sellwood; D. C. Cowles, of Woodburn; E. W. Hodson, of Newberg; M. H. Horton and J. W. Howard, both of Corvallis; T. R. Parsons, of Yarnhill; C. C. Peery, of Falls City; R. V. Pointexter, of Prineville; E. F. Surface and Pearl I. Williams, both of Corvallis; and F. J. Wilson, of Canyonville.

As assistants—B. R. Brook, Ralph Delano and F. A. Viles, all of Portland; and H. L. Stonaker, of Grants Pass.

The next meeting of the board will be held September 6th and 7th, at Portland.

Pennsylvania Board.

Examinations were conducted by the Pennsylvania Board of Pharmacy May 21st and 22d, at Philadelphia and Pittsburg. At the former place 157 applicants for registration as pharmacists, and 146 for registration as assistants were examined; at Pittsburg 73 applied for registration as pharmacists, and 70 as assistants. In all, 139 were successful as pharmacists, and 155 as assistants. Those who passed are:

As pharmacists—J. H. Allen, T. P. Babbitt, H. H. Bell, Mitchell Bernstein, Z. E. Bohn, J. T. W. Bonner, M. A. Bossert, E. G. Brown, H. H. Brown, M. R. Cady, H. M. Cameron, Philip Canlon, J. M. Casey, J. A. Clewell, Daniel Cubiciotti, R. W. Cuthbert, Jacob Davidovitch, Chester Evans, W. T. Evans, J. T. Fischer, Bernard Fishman, J. R. Fulton, C. B. Gallant, E. H. Gerdis, J. C. Gibbs, H. L. Goldberg, S. J. Goldberg, H. M. Greim, B. C. Haines, C. G. Hersh, C. E. Hoffmann, Amos Jones, A. C. Keim, F. C. Kinney, J. B. Leedy, N. M. Levey, J. A. Logan, J. L. McMahon, John Moser, E. C. Murray, E. A. Noedel, F. A. Pfeifer, W. H. Pond, M. B. Schwartz, O. E. Segge, F. L. Selb, J. S. Simpers, B. S. Sprissler, Mabel Starr, Benjamin Steimer, H. E. Strauss, G. S. Tregella and Sara C. White, all of Philadelphia; A. W. Aiken, H. G. Blank, O. C. Boerner, F. P. Carter, J. D. Crampton, Louis Emanuel, Jr., C. J. Grove, E. F. Heinrick, Leon Horwitz, Ralph Lipton, C. L. Payne, R. L. Peel, P. T. Squitieri, G. O. Stech and E. A. Swartz, all of Pittsburg; A. E. Albert of Mount Pleasant; H. J. Alexander, of Crafton; C. L. Anderson, of New York, N. Y.; E. A. Ashton, of Wilkes-Barre; Earl Bailey, of Waynesburg; R. F. Campbell, of Donora; W. F. Cramer, of Point Pleasant, N. J.; R. J. Crowthers, of Monessen; G. A. Dapp, of Harrisburg; H. C. Davis, of Christiana; P. M. Davis, of Scranton; J. C. Dreibelbis, of Wisconsin; G. S. Dunbar, of Asbury Park, N. J.; H. W. Eakle, of Hagerstown, Md.; G. P. Fehrman, of Sharpsburg; W. E. Ferron, of Salt Lake City, Utah; G. C. Garber, of Washington; J. F. Grabowski, of McKeesport; E. A. Grodicour, of Monongahela; L. R. Hayne, of Masontown; D. E. Haller,

of Chambersburg; G. C. Harvey, of Lock Haven; C. S. Herron, of Dubois; D. L. Houck, of Indiana; W. S. Howard, of New Kingston; F. E. Hulme, of New Castle; R. T. Hunter, of Altoona; Albert Hutson, of Camden, N. J.; T. F. Jackson, of Braddock; C. A. Jones, of Bradford; F. J. Keim, of Dubois; E. L. Kelley, of Elmira, N. Y.; Solomon Kleckner, of Girardville; W. R. Klopp, of Womelsdorf; H. M. Knight, of Quarryville; H. J. Krum, of Allentown; A. W. Levan, of Coatesville; G. M. Levan, of Esterly; L. J. Lindsley, of Corry; S. W. Livengood, of Munhall; H. C. McClellan, of Wilkinsburg; F. H. Miller, of Beaver Falls; R. J. Moeschlin, of Sunbury; R. A. Mooney, of Worcester, Mass.; W. H. Obergh, of Titusville; R. C. Osterwise, of Greensburg; C. E. Paisley, of New Castle; J. B. Parks, of Leechburg; H. W. Pegg, of Millville; A. A. Platt, of Morristown; H. E. Pontius, of Chicora; E. W. Pyfer, of Avalon; E. G. Reig, of Warren; E. M. Rentschler, of Reading; C. E. Schlenker, of Wapakoneta, O.; R. W. Schoonover, of Bellevue; J. W. Smith, of Bradford; G. F. Steinmach, of Millville; E. C. H. Stinle, of Scranton; C. E. Stump, of Wilkinsburg; F. G. Thompson, of Conneautville; R. A. Timms, of West Newton; W. E. Vance, of Wampum; Charles Weyels, of Braddock; F. B. Wick, of West Sunbury; R. B. Wissler, of Lancaster; D. O. Wolf, of Boston, Mass.; G. B. Wood, of Bradford; R. J. Wotring, of Allentown; W. A. Yeakel, of Morristown; and H. E. Young, of Hagerstown, Md.

As assistants—N. H. Anthony, Samuel Baradofsky, Samuel Baron, Max Baum, W. D. Baun, Chester Bollinger, Rosa K. Brister, R. E. Buins, Lloyd Burt, A. C. Butler, Gerson Cournos, Samuel Crissman, W. T. de la Reintrie, H. A. Erney, J. S. Fanz, Harry Farber, W. J. Ferrell, Lewis Fleisher, Louis Freedman, N. M. Friedman, W. J. Gaskell, S. P. Glass, Meyer Goldberg, S. E. Gosnay, F. H. Grazer, Charles Gutzert, Morris Haimowitz, A. S. Hall, Philip Hanopolsky, J. L. Harrison, W. M. Hart, Elmer Hessler, Elias Israelvitz, Nathan Kaufman, S. B. Kennedy, C. B. Klapp, James Kramer, J. A. Laferty, D. J. Lawsons, A. F. Lippi, H. M. Medd, M. L. Messinger, J. J. Misorocho, Mary E. Morgan, E. F. L. Moyer, L. H. Myers, Rae V. Nicholas, W. T. Plowman, W. L. Pratt, Harry Promisloff, Albert Rachmil, Chester Riland, L. A. Rominecki, G. H. Scholl, Israel Spiers, Morris Stein, L. S. Templeton, S. P. Verstine, Louis Viner, Harry Wagner, A. N. Wilcox and D. S. Zelmanoff, all of Philadelphia; H. A. Bearl, L. B. Boreman, W. D. Callahan, G. N. Coleman, J. M. Geier, Wladyslaw Laweck, W. J. Ochsenhirt, Leon Pinecki, F. L. Schweitzer, J. D. Sullivan, George Weger and P. E. Yeager, all of Pittsburg; H. E. Allen, of Parnassus; J. W. Atkins, of Lebanon; R. A. Bell, of Chicora; Anna E. Bigard, of Carbondale; W. L. Bischoff, of Haddonfield, N. J.; J. V. Blair, of Clarendon; A. P. Blayney, of Homestead; W. H. Bronner, of East Stroudsburg; C. E. Burley, of Harrisburg; J. W. Carroll, of Charleroi; J. J. Casey, of West Pittston; A. W. Chapin, of Kingston; C. W. Christenson, of Kane; T. G. Conander, of McKeesport; B. B. Cook, of Hazleton; R. W. Crawford, of Dubois; R. M. Davis, of Johnstown; H. V. Day, of Glassport; R. E. Dersch, of Reading; L. W. Detweiler, of Jeanette; H. B. Dilatush, of Hightstown, N. J.; W. T. Fair, of Dubois; C. E. Gault, of Findley, O.; H. A. Gibson, of Washington; C. M. Goodhart, of Reading; O. A. Griffin, of Spadva, Ark.; R. H. Heiser, of Washington; George Helwig, of Ashland; C. P. Hildebrand, of Morgantown, N. C.; Lester Hollander, of Braddock; D. W. Huber, of Gettysburg; William Jacobs, of Morristown; G. E. Kahl, of Manheim; R. A. Keltz, of Parnassus; R. L. Krall, of Harrisburg; O. P. Kreamer, of Mill Hall; C. C. Kuenzig, of Carnegie; Harry La Don Blou, of Beverly, N. J.; T. W. Lawrence, of Emlenton; A. M. Lewis, of Plymouth; C. J. W. Lyons, of Wilkes-Barre; E. R. McAbee, of Oil City; H. I. McCormack, of Scranton; H. A. McGlumphy, of Braddock; C. R. Maldoon, of Donora; J. A. H. Martin, of Emsworth; John Miles, of Mahanoy City; W. J. Morgan, of Peckville; W. J. Murphy, of Scranton; Anastasius Parobeck, of Johnstown; J. F. Peebles, of Greensburg; Emil Pekarek, of Wilkes-Barre; H. J. Pettyjohn, of Milford; J. W. L. Purcell, of Shenandoah; B. C. Rhoads, of Shamokin; L. J. Roe, of Oil City; W. W. Rose, of Georgetown, Del.; Minnie Rothwell, of Hatboro; Israel Rovner, of Carmel; F. W. Shell, of New Cumberland; H. E. Schellenger, of Cape May; N. J.; C. A. Schrank, of West Pittston; E. H. Shaffer, of Elizabeth; Elias Shaker, of Poughkeepsie, N. Y.; James Sheffer, of Greensburg; G. F. Shugars, of Shippensburg; W. V. Stafford, of Freehold, N. J.; W. E. Strunk, of Lock Haven; W. G. Sylvester, of Bridesburg; Frank Taylor, of Cannons-

burg; C. R. Wambaugh, of Wilkesburg; S. R. Washko, of Windber; A. M. Weimer, of Scranton; W. E. Welch, of Crafton; A. G. Wepfer, of Neillsville, Wis.; E. H. Willets, of New Kensington; F. J. Williams, of Plymouth; L. H. Williams, of Olyphant; L. R. Williams, of Plymouth; and C. H. Woodford, of Allegheny.

The next meeting of the board will be held August 18th and 19th, at Williamsport.

West Virginia Board.

At the meeting of the West Virginia Board of Pharmacy, held June 1st, at Morgantown, thirty-six persons made application for registration as pharmacists, and eight as assistants. Twenty and seven, respectively, were successful, being the following:

As pharmacists—S. D. Ault, of Charleston; D. G. Baxter, of Wilson, Pa.; T. H. Becker, of Bluefield; S. C. Blair, of St. Albans; J. D. Dent, of Charleston; L. D. Emery, of Sistersville; W. M. Greenwood, of Bluefield; J. R. Judy, of Petersburg; J. G. Keyyl, of Bluefield; E. P. Kochert, of Wheeling; J. A. Lendon, of Pocahontas, Va.; O. H. Levier, of Weston; Sister Mary B. McCarrell, of Wheeling; W. E. McCoy, of Buffalo; C. E. Paisley and J. M. Rice, both of New Castle, Pa.; Earl Richards, of Parkersburg; D. C. Sturgiss, of Fairview; B. C. Windom, of Buckhannon; and L. A. Yancey, of Kimball.

As assistants—L. T. Ford, of Roseville; H. L. Gum, of Gassaway; E. W. Jones, of Huntington; D. B. Myers and J. DeW. Thompson, both of Morgantown; H. P. West, of Sistersville; and J. W. Wilson, of Lewisburg.

The next meeting will be held at Bluefield some time in October.

The board elected the following officers for the ensuing year: President, F. B. Haymaker, of Clarksburg; and secretary, Alfred Walker, of Sutton.

S. M. Scott, of Terra Alta, has been re-appointed a member of the board.

Wisconsin Board.

O. J. S. Boberg, of Eau Claire, whose term as a member of the Wisconsin Board of Pharmacy expired this year, has been re-appointed for a period of five years.

Pharmacists in the Government Service.

The following official announcements have been made:

PUBLIC HEALTH AND MARINE-HOSPITAL SERVICE.

Pharmacist L. W. Ryder received a grant of one day's leave of absence, June 19th.

Pharmacist J. M. Bell: Leave of absence granted May 27th, for thirty days from June 18th, amended to read thirty days from July 10th.

Pharmacist K. H. Graham received a grant of fifteen days' leave of absence from July 1st.

Pharmacist K. H. Graham resigned to take effect July 15th.

Pharmacist W. L. Stearns was reassigned for duty at Pensacola, Fla., to date from May 25th, last.

Pharmacist F. L. Brown was relieved from duty at Boston, Mass., and directed to proceed to the South Atlantic quarantine station.

Pharmacist Malcolm McKay was relieved from duty at the Gulf quarantine station and directed to proceed to Key West, Fla.

Pharmacist B. E. Holsendorf was reassigned for duty at San Juan, P. R., to date from February 12th, 1908.

Pharmacist L. W. Ryder received a grant of two days' leave of absence from June 25th.

Pharmacist M. R. Mason was reassigned for duty at San Francisco quarantine station, to date from February 12th, 1908.

Pharmacist R. F. Troxler: Leave of absence granted May 28th for twelve days from June 7th, amended to read ten days from June 7th.

Pharmacist G. A. Morris was reassigned for duty at St. Louis, Mo., to date from February 4th, last.

Pharmacist C. Stier was relieved from duty at Key West, Fla., and directed to proceed to the Gulf quarantine station.

Pharmacist J. M. Bell was reassigned for duty at Fort Stanton, N. M., to date from February 4th, last.

Pharmacist E. B. Scott was promoted to be a pharmacist of the first class, to date from June 19th.

Pharmacist L. C. Spangler received a grant of twenty-four days' leave of absence from July 1st.

Obituaries.

JOHN BERRY, retired, died at Saco, Me., June 3d.

Brigadier-General BOBELETER, mayor of New Ulm, Minn., died recently after a long illness.

BERT BREITHAUP, of Fairbury, Ill., was drowned recently in the Illinois River.

Dr. C. J. L. CARBERRY, formerly of Philadelphia, Pa., is dead at Atlantic City, N. J. He was sixty years old.

CHARLES E. CLEMSON died at Reading, Pa., June 24th.

Dr. ISAAC S. CURTIS, aged seventy years, died recently at Brunswick, Me.

E. B. DOLL is dead at Greencastle, Ind.

JESSE J. DRIVER, of Ogden, Utah, died recently, at the age of sixty-eight years.

PETER GISHER, a native of Russia, died recently, at Milwaukee, Wis.

JOHN J. GOODLAD died at Jersey City, N. J., June 15th, aged fifty-seven years.

ARTHUR B. GREENWOOD, forty-nine years old, is dead at Brockton, Mass.

NOAH SPARHAWK HARLOW, librarian of the Bangor Historical Society, died recently at Bangor, Me. He was eighty years old.

W. P. HARRISON, president of the Fariss-Klutznick Drug Company, of Greensboro, N. C., is dead, at the age of thirty-three years.

NEWTON G. HILDRETH, of Cincinnati, O., died in June. He leaves a widow and six children.

EDWARD CLARENCE HOPKINS, one-time member of the firm of H. Bosworth & Co., of Milwaukee, Wis., died recently at Lockport, N. Y. He was seventy-two years old.

JOSEPH KINSEY died recently at Cleveland, O., at the age of thirty-three years.

THOMAS PENFIELD LITTLEBRANDT died June 22d, at Orange, N. J. He was sixty-two years old.

CHARLES L. LOCKWOOD, former supervisor of the St. Lawrence, New York State, hospital for the insane, is dead at Revere, Mass, aged sixty-eight years.

J. K. McILHENNY, of Greensboro, N. C., died recently at the age of sixty-one years.

JOHN W. METZ, druggist and ex-fire-chief, of Youngstown, O., died June 11th, aged sixty-six years.

Dr. JOHN MONLEZUN, manager of the Workingmen's Co-operative Drug Company's store at Algiers, La., died recently, aged thirty-six years.

Prof. JOHN MORSE ORDWAY, ex-president of Tulane University, died at his home near Boston, Mass., July 5th. He was eighty-six years old.

FREDERICK G. PAULY died June 15th, at College Point, Long Island, N. Y.

J. H. POLHILL, of Fitzgerald, Ga., died recently. He was president of the Georgia Pharmaceutical Association in 1902-3.

CHARLES H. PORTER is dead at Indianapolis. He was forty years old and leaves a widow and two children.

ALBERT REICHMAN, of Joliet, Ill., is dead.

WILLIAM H. SCOTT, one of the oldest druggists in Virginia, died at his home at Richmond, in June. He leaves three children.

HENRY L. SCHULTZ, died June 27th, at Albany, N. Y. He was fifty-three years old.

CHRISTOPHER E. STRUNTZ, of Pueblo, Col., died June 22d, aged thirty-five years.

ARDEN H. THOMAS, of Brewster & Thomas, of Fortville, Ind., died recently, leaving a widow and one son.

RUDOLPH TRUOG, a native of Switzerland, and one of the oldest druggists of this city, died June 26th.

ANDREW M. TUMBLESON, of Baltimore, Md., died June 16th. He is survived by his wife and eight children.

HERMAN J. WATJEN, Civil War veteran, of Vincennes, Ind., is dead.

JOHN W. WHITAKER, aged sixty-two years, died recently at Fall River, Mass.

JOHN LAWRENCE RIKER, one of the most prominent figures in the drug trade of this city, died at his home at Seabright, N. J., July 6th. Born on Long Island in 1830. Mr. Riker entered the employ of B. H. Field, a dealer in

drugs, chemicals, etc., when about eighteen years old, later becoming a partner in the business. In 1860 with his brother D. S. Riker he started the firm of J. L. & D. S. Riker in the same line of business. He remained at the head of this firm until 1901 when he withdrew, the business being incorporated under the same name. Mr. Riker leaves seven children, his three sons conducting the business he founded.

JOHN W. F. WILSON, retired, of South Boston, Mass., died June 5th, aged eighty-one years.

FRED WOLFROTH, of West Bend, Wis., died June 19th, at the age of seventy-seven years.

Mrs. EMMA L. DIEKMAN, wife of Prof. George C. Diekman, of the New York College of Pharmacy, died at their home in Brooklyn, June 22d. The funeral services were held in Brooklyn, June 24th, interment being at New Haven, Conn., where Mrs. Diekman was born, the daughter of Mr. and Mrs. R. C. Cheney. One child, a daughter, shares the husband's loss.

Jamieson Day, 1909.

In the calendar of feast days of the Chicago Veteran Druggists' Association none is printed in redder ink than is June 21st, Jamieson day. This year it was celebrated at the Rienzi, whither the veterans and a few fortunate friends were conveyed in automobiles. June 21st is also flower day of the association and the red carnation shared the honors of the occasion with T. N. Jamieson. The official flower was toasted by Wilhelm Bodemann, as the emblem of courage, honor, friendship and gemüthlichkeit.

President C. W. Grassly made the following recommendations: That each member and associate write his autobiography and send it to the secretary; that each member and associate write his recollections of the Chicago fire; that each year there be celebrated patroness and nestor day, in honor of Mrs. and Mr. T. N. Jamieson; that the design of the official flower be incorporated in the button of the association; and that a special badge of honor be struck for Mrs. Jamieson.

Miss Annie Lloyd, daughter of Prof. and Mrs. John Uri Lloyd, of Cincinnati, and Dr. Odasco C. Welbourn, were married June 23d. The groom is a professor in the eclectic medical college at Los Angeles.

The Druggists Circular

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THE DRUGGISTS CIRCULAR,

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D. G. Bogert, Secretary.

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Net Advertising Rates.

	3 months.	6 months.	12 months.
One Page.....	\$248	\$438	\$750
One-Half Page.....	142	238	438
One-Third Page.....	115	166	300
One-Quarter Page.....	86	125	225
One-Sixth Page.....	60	100	166
One-Eighth Page.....	45	70	125
One-Twelfth Page.....	34	56	100
One-Sixteenth Page.....	25	43	75
One-Twenty-fourth Page.....	19	33	56
Card 2½x7½ inches.....	11	19	33

Special prices are charged for preferred positions.

Changes for standing advertisements should reach us before the TWELFTH of the month, as we commence printing on that date. New advertisements sent in before the 23rd of any month can be inserted in the following issue.

No order given to any representative of this paper becomes binding until approved by the publisher or manager.

Questionable or undesirable advertisements will not be accepted.

Classified Opportunities.

Advertisements are inserted under this heading without display except as to a portion of the first line; the charge is at the rate of 25 cents for six words, each figure, abbreviation or initial being considered one word. Terms: invariably cash with order.

cases, and the public understands their import, which, unfortunately the public does not always do, the tables are turned on the malefactors and the just get their due.

Happily for the people of the United States whose stomachs need guarding, at least one man in Washington whose duty it is to aid in the administration of the food and drugs act seems to have shown himself conscientious in the discharge of his duty to the public whose servant he is, and beyond the reach of the corruptionists. This, too, in the face of influences which would have captured a less steadfast man, or, failing in that, would by their persistence have driven him in desperation from the public service. The firm stand of this man for what he evidently believed to be the right has caused an upheaval in administrative circles and has been the cause of the turning of a flood of light upon some of the methods in vogue at the seat of our general government. The conditions thus revealed, while far from inspiring, at least carry a lesson, and if the public does not profit by the knowledge it has gained through the upheaval and consequent light-turning, there are pessimists who will say that they deserve to continue to suffer at the hands of those who have been poisoning and robbing them.

But the public will profit by what it is learning.

Wanted: More Time for A. Ph. A. Business.

When Prof. Edward Kremers, at the meeting of the American Pharmaceutical Association held at Boston last month, moved that the association urge its council to provide ways and means for ridding the general sessions of much of the time-consuming and non-result-producing features which from time out of mind have encumbered its sessions, he but voiced a sentiment which the older working members of the association must have entertained for many years, and the younger ones for as long as they have had cognizance of the association's affairs. While the amendment offered by Dr. E. H. Bartley, to the effect that the matter be referred to the long-standing committee on reorganization, might with great propriety have prevailed, the body evidently was in no humor to order such a pigeon-holing of it, and Prof. Kremers' motion encountered no real opposition. This occurred just after Dr. Solis-Cohen had electrified the association by a masterful address, the delivery of which was an example of what the assemblage might have if it did not consume so much of its time in giving a respectful hearing to other speakers who doubtless do not especially relish being dragged before it to deliver in a lame and perfunctory manner messages which are of no interest or consequence.

There was a time, not many years ago, when such a thing as holding two section sessions simultaneously was new. The idea was resisted, and was put into effect at first as a mere temporary expedient. Now it is the usual and expected thing, although the by-laws seem to provide for the holding of section sessions in a different manner. Sections have grown in number from time to time, even though such a thing

as consolidating two of them into one is not unknown. There are now five sections, and this enumeration does not include the association of boards, the conference of faculties, the syllabus committee, and other smaller bodies, which while not integral parts of the association, yet serve to divide the time and attention of those who attend its meetings, nor does it include the council. A proposition to create another section was submitted at the recent meeting: Prof. Oscar Oldberg proposed that a section on United States Pharmacopœia be erected. That a full and careful consideration of matters pertaining to the Pharmacopœia should be indulged in by members of the association there can be no gainsaying, but the advisability of setting apart a section for the exclusive use of those who wish so to indulge, or of making a new section for any purpose at this time, is questionable. There are so many sections now, that simultaneous sessions, as we have just seen, are necessary, and such sessions are not only unsatisfactory to the members who wish to get all the good possible out of their attendance at the meetings, but are not creditable, as to numbers present, to the sections, or satisfactory to those who present papers for discussion.

With respect to this matter the association seems to be in a dilemma. If it holds two or more section sessions at once, both the active and the passive members lose much of that for which they came to the meetings, and if it discontinues this practice, not enough time will be available for the reading and discussion of papers to make it worth while for members to present them, especially now that the council shows a disposition to limit the publication of these papers to the official organ of the association.

It seems that the motion of Prof. Kremers is a step in the direction of the only feasible way out of the trouble. One week is a short enough time to devote to a meeting of the association when none of it is wasted; to extend the meeting into a second week is hardly practicable; therefore it is plainly the duty of those who are in a position to regulate this matter to see that the dreary superfluities of the meeting are deleted.

The Hallberg Fund.

Although not organized as a charitable or benevolent institution, the American Pharmaceutical Association is composed of a class of men in whose make-up the milk of human kindness has a large place. With the possible exception of the physician and the minister, no man is brought into closer contact with human suffering than the druggist, or has his charity appealed to more often. When the physician administers to the wants of the poor and distressed he gives of his time and his knowledge, when the minister is called upon he responds with sympathy and consolation, but when the druggist is sought, his contribution is of a material kind which represents not only time and knowledge, as well as something of sympathy and consolation, but a tangible asset with a certain fixed value—in short, it represents cash.

No man worthy of the name druggist who has been

in business for any length of time but could tell a tale of medicines supplied to those too poor to pay and too sick to wait. Much is said in the papers about the druggists' shortcomings—actual or supposed—and the alleged funny men crack many jokes about the enormous profits which they assume that he makes, but it is indeed seldom that anyone, even the druggist himself, refers to his donations of services and goods to those who stand in dire need of them and have not the wherewithal to give in exchange. The butcher, the grocer, the coal dealer, and the milkman, must be paid, and the landlord demands his rent, but the physician, the minister, and the druggist—these may wait. These facts seem to raise the druggist out of the ranks of mere tradesmen, and place him in a professional position.

But this is a digression; what we had in mind and desired to call attention to, was the quickness with which the members of the American Pharmaceutical Association saw the need of their help, and the unstinting manner in which they rendered it, when one of their number, cut down suddenly in the strength of a robust manhood, left a home encumbered by debt, a widow without means of livelihood, and a bright young son who needed and very much desired an education. An appeal went forth to the members of the association; a brother who had been so busy serving pharmacy that he had neglected to lay aside money for the rainy day which he thought still a long way off, was dead. A memorial to him was due, and it should take a practical form. Would they contribute the money necessary to save his home and keep his little family together? They would, and they did. Men of moderate means though they were, in the main, they responded with contributions according to their ability, and soon a fund was in hand sufficient to put into execution the plan which its founders had in mind.

In providing a Hallberg memorial fund the American Pharmaceutical Association has erected a monument to that quality in American druggists which is one of their chief characteristics—human kindness.

THERE IS SOMETHING HYPNOTIC about printed things. A woman will believe a statement about a piece of goods when she reads it in an advertisement in the paper, when she would doubt the same statement made to her by a salesman. Let a foolish and freckled girl read in Miss Mazie Mazuma's "Beauty Column" that mazumarine at a dollar a bottle will eradicate her freckles, and she will walk out of the store of an honest druggist who tells her that mazumarine is merely a solution of corrosive mercuric chloride the use of which might disfigure her for life and possibly kill her, and keep on going until she finds somebody who will supply the stuff. That is to say, she has been known to do this and pay her life as a penalty. The girl had been hypnotized by the type and the confidential I've-suffered-too attitude of Mazie (whose real name is Bill). Many's the time some druggist has written to us to say that he finds it hard to convince a customer of something he has told her for her own good, but has been able to carry his point and save her from the result of her own

foolishness by showing her a printed opinion in the CIRCULAR. Let those who have not done so make the experiment of trying to offset printed bosh with printed truth; and if any reader wants our aid in a given case, he has only to call upon us for it.

SNUFF TAKING in North Dakota became so prevalent and its results so harmful that many who studied the question came to the conclusion that the snuff was "doped." Accordingly a law has been enacted by the legislature of that State, which becomes fully operative September first, prohibiting the sale of snuff containing anything other than "pure tobacco, fermented, dried and to some extent pulverized, variously flavored and scented." Especially does the law interdict the sale of snuff to which has been added any "alkaloidal and narcotic constituents which are foreign to tobacco." The penalty for violation of the statute ranges from a fine of not less than five hundred dollars, to confinement in jail for not less than six months.

THAT THE MODERN MATERIA MEDICA is a valuable book for retail druggists, we always believed; and our belief was often strengthened by the words of appreciation in which many of the profession referred to the book. But we underestimated the popularity of the little cyclopedia of the newer remedies; and the second edition published but a few months ago is now out of print. It is our intention to publish a third edition at an early date. Because of the immense amount of labor incident to the collecting of up-to-date data, the new edition will not issue so soon as materially to shorten the usefulness of the second edition.

REAL PROFESSIONAL MEN in the ranks of physicians work primarily to cure their patients, and secondarily for their fees. Quacks work primarily for their fees. The pharmacist who is a real professional man says, If the preparation is fraudulent or dangerous I will not sell it, no matter what the profit, whereas the quack in the drug business would say, No matter how good the preparation I will not sell it if there is more profit to be made on a similar article of less merit which I can sell just as easily.

PERPENDICULAR PELVIS is the "scare head" on an article in an esteemed medical journal. Now we may look for its rivals to get even by publishing essays under such alluringly alliterative captions as "Horizontal Heart," "Longitudinal Lungs," "Oblique Optics," "Kinked Kidneys," and others equally apt.

HEADACHE POWDERS continue to cause sudden deaths, according to circumstantial accounts in the newspapers. A late case was reported from Hastings-on-Hudson. How many deaths they are responsible for which are not attributed to them, nobody can say.

METRIC SYSTEM advocates are alive, and if those who persist in hanging on to the weights and measures of the middle ages do not watch out they will be forced into twentieth-century practices in spite of themselves.

"Never did a little benzoate of soda set up such a chemical reaction," remarks the Ridgeway (Pa.) Record.

This is the month for the N. A. R. D. meeting at Niagara Falls.

hand, he can reduce to exact figures the costs of his doing business, and thus be able to calculate his profits. It is most necessary that he shall know what percentage of his gross sales are consumed by the running expenses, both that he may know what prices he must put on his goods, and what the real worth of his business is. In gaining this insight into things, many items which should be regarded are often forgotten. One must take into consideration all such things as rent, heat, light, clerk hire, interest, taxes, freight, insurance, breakage, and depreciation of fixtures, and not overlook his own salary—the amount he thinks he could get if working for another.

A LESSON IN PERCENTAGE.

Accurate figures against these items and others which will occur to the business man, give him an insight into the nature of things as he makes a price on an article. If he wishes to make a certain profit, he must add the cost of doing business to the invoice price of the goods, and use the sum as his basis in fixing the selling price. Just here, let me remind him that 20 per cent. added to the cost of an article does not mean 20 per cent. profit, for though there are old business men who never have discovered it, when 20 per cent. is added for profit, the profit is only 16⅔ per cent. It is convenient to remember that to make a profit of 20 per cent. one must add 25 per cent. to the cost price, to make 25 per cent. profit, he must add 33⅓ per cent., to make 33⅓ he must add 50, and to make 50 he must add 100. Only if one has something given to him for nothing, and is able to sell it for something, can he make the often quoted, but fabulous, 100 per cent. profit.*

Attention must be given to all matters that affect either our own credit or the credit we extend to others; to the prices we are paying and to the prices we are getting; to the real status of the business judged by a careful analysis of it based on solid fact and not mere guesswork.

IMPORTANCE OF CUSTOMERS.

An x-ray must next be turned upon the people with whom we have to do. They are the chief factor in any business. Without them, every other factor would be worse than useless. Our fisherman friends choose their bait with discrimination, but they must first know what sort of fish they are going after. Our buying, our advertising, our store policy, indeed, everything depends on the kind of people with whom we are to deal. Emerson had a saying to the effect that if a man has what the people want, and has it better than other people, the whole world will make

a path to his door. To supply the wants of the people, the first step is a knowledge of the people.

Here, again, analysis comes into play, and we will call it now, classification. First, we must know where they live, whether in city or country, and we must not forget that what will attract in the city will not in the country. Their needs we must judge from intimate knowledge. The real city dweller is not represented by those who make up what the editor of the social column calls the "smart set," any more than the typical farmer is the character depicted in the funny papers. Let us get into the homes of our customers, if possible, where a glance around will reveal more to us of their tastes and avocations and, therefore, of their needs, than many a shrewd (?) guess.

If we know their financial condition, whether they are properous or poor, it will help us to regulate the quality of what we offer them in our stores. We must also know whether they are liberal or economical with their money. What would appeal to the staid citizen of an old New England town, who believes in making his dollar go as far as possible, is intrinsic value or utility, while the free-hearted, free-handed Colorado miner would pass such an article for something which appealed to him simply as a novelty.

If a druggist is situated near a school, that fact will suggest to him many attractive and profitable side lines, as school supplies, banners, fountain pens, and the like. A nearby railroad station would suggest that a strong push be given the popular magazines and papers, cold and hot drinks, and souvenirs. A factory would suggest that the dealer find out the favorite kinds of goods bought by the workmen, and put forth a special effort to identify his store with their needs. One might multiply instances and enlarge to any length to show how a druggist may profit abundantly from a clear insight into the needs of the classes of people who are to supply his bread and butter, and perhaps his sauce.

POLICIES SHOULD NOT BE ALLOWED MERELY TO GROW.

As Orison Swett Marden says, "A bad plan well worked is better than a good plan not worked," yet many of us do not even get as far as the plan. Our store policies are allowed to form themselves, and are good or bad according to our own personalities. In our look into things, an acid test of our business policies that will dissolve the bad, and allow the good to shine out more brightly, is of use. Are we stingy? Do we refund money cheerfully if anything is not satisfactory? Do we deliver goods grudgingly? Do we allow ourselves to be merely "out of" an article with no word of explanation? What sort of a greeting do our customers get? Are they made to feel at home? Do they come naturally to us when they wish to be accommodated? In short, is ours such a store as men and women, and even the children, like to come to? A look into this will help us to "see ourself's as others see us"—and to our advantage, I am sure, even if to the hurt of our pride.

The "proper study of mankind is man;" the proper study of business is business. If we would gain an insight into ours, we must study it closely, but it is well very often to make it a study by comparison. Other people's experience is cheaper than our own, and if we really know ourselves, we can adapt it to our needs without paying the exorbitant prices some of us are forced to give.

*Percentage of profit is calculated on the investment, not on the investment plus the profit. When a bank lends \$100 for a year, and then collects \$105, the bank's profit is regarded as 5 per cent. on \$100, and not as (approximately) 4⅓ per cent. on \$105. When a merchant buys an article for \$1 and sells it for \$1.50, his profit is 50 per cent., on his investment. Should he sell it for \$2.50, his profit would be 150 per cent. on his investment. A profit of 1000 per cent. is not uncommon. If the merchant pays \$1 for a piece of goods and sells it for \$1.50 there is no reason why he should not say that 33⅓ per cent. of the money he received for it is profit, but the advantage of this form of statement is not manifest. When a piece of goods has been held at \$1 and is marked down to 50 cents, there has been a 50 per cent. reduction; more than a 100 per cent. reduction is impossible, and a 100 per cent. reduction would mean that the article was to be given away.—Editor THE DRUGGISTS CIRCULAR.

What Ideas and Energy Accomplish.

BY AN OBSERVER OF THINGS.

Once there was an old druggist who did things in the old-fashioned way in his store and wondered why business was not better.

His shop had been the business establishment of his father, and his father had made money because he possessed the only drug store for miles around. Besides that, in his father's time there had been no new-fangled things to speak of in use in any of the drug stores. Everything was "ancient."

The son came into possession of the drug store, and for years he, too, flourished. He had passed the fifty-five year mark when I became acquainted with him and his ways. A noticeable, radical change in business methods began at about this time. The son could not understand the reason for the falling off in his business, although on the opposite corner a younger and enterprising man had opened a new drug store with all the fixtures and stock of a modern establishment.

While the old man had no soda fountain at all, and carried his soft drinks in bottles on ice in a box back of the counter, the new man had a first-class fountain which not only paid well but attracted customers. The old man's bottles were often left on the counter after some one had had a drink and the sweet liquid frequently got on packages of drugs or on the sleeves of persons who happened to be careless enough to lean on the counter. Flies collected. Soiled glasses and corkscrews with the corks still on them were to be seen.

The old man also made most of his preparations. He had the old-style mixing devices in the back room and frequently he devoted much time to spreading a plaster while the customer waited.

Things were going along in this way when a stranger struck town and applied at the store for a job. The old man wanted the windows washed and some other rough work done about the place, so he hired the man for a week at two dollars a day. The man went at it in good form and in a few days had things moving in the cleaning up line. Then the man asked to be retained longer. He explained that he had had a little training in the drug business, although he could not fill prescriptions.

The old man told him he might remain a little longer, and he also let him introduce some new methods. For the purposes of this story I shall call the man George.

George purchased some new clothes with his first money and then he proceeded to get points from the man across the way.

George talked the old man into putting in a soda fountain and soon became an expert dispenser of choice soft beverages. The citizens realized that at last the old druggist was striving to get his shop in line with modern styles. There were many willing and steady patrons of the old store, and these people took courage when they saw that the store was undergoing improvement.

George had some advertising ideas which he applied. The drug store was lighted with a motley collection of old illuminating devices. In the back shop there were kerosene lamps and in the front some gas jets. There were candle sticks and tallow dips. George seeing that some of these devices were quite

odd, figured that the public might be interested in them as antiquities. He fixed up some placards for the show window of the store. One placard read:

.....
: THE TALLOW DIP ERA OF :
: ILLUMINATION. :
:

This he placed alongside a tallow-dip utensil in the window, all lighted, on show.

Next to this was a card calling attention to the common candle, and some words about the candle era.

Then there came a card bearing on the kerosene lamp era, near an oil lamp.

The next exhibit illustrated the gas era.

Finally there was an electric arc light suspended in the window, attached to which was an appropriate card referring to the electric-lighting era. Then George fixed up a sign which read:

.....
: These Lighting Eras Illustrate the Prog- :
: ress of our Drug Business from the Begin- :
: ning of Commercial Interests in this Town. :
: This is the Oldest Drug Store in Town, :
: yet we have the Most Modern System of :
: Doing Business. Come in and See. :
:

Passers-by were surprised to see the rows of different kinds of lights representing the advancement made in brilliancy of illumination in years gone by. Regular patrons of the store were surprised to see that the old druggist had decided to change his policy and put in new things to compete with the modern druggists of the community. The surprise was increased when an electric sign bearing the words "Drugs" in twelve-inch letters was swung out one night. The entire block was lighted by its brilliancy. This sign attracted the notice of even speeding automobilists, some of whom stopped and made purchases. It indicated that the store was up to the times.

Meanwhile George had been exceedingly busy inside the store. The old man had learned to place confidence in George, and although the old man "bucked" a great deal George had great freedom. Indeed, the old man depended upon him to a great extent. George ordered new show cases. He encouraged drummers, listened to their words of wisdom mingled with much "hot air," made a distinction between the two kinds of talk and placed orders with reputable houses whose advertisements he had seen in the drug journals. The stock was in a very depleted condition, so the orders were liberal. The old man felt that bankruptcy was at hand, but George had a convincing manner and so was permitted to continue in his course. Besides, the patronage of the store was increased wonderfully, so much so, in fact, that in a little while it was necessary to engage another assistant.

George had got things to moving. His pay was increased. The old man could not get along without him, and he had no idea of leaving. Increased inquiries came in from new customers for articles that the old man never thought of carrying in stock. The margins of profits on some of these special articles were good. Persons inquired for things that they

us get the habit of making our preparations and "de-tailing" physicians, and then we shall reap the profits that some of the nostrum houses are getting now. Let us show pharmaceutical skill; let us furnish them out of our laboratories samples that are true to name, that have the therapeutic properties claimed for them, that are as palatable as human skill can make them.

ACTION, CONCERTED ACTION PREFERABLE, BUT ACTION.

First, last, and all the time, let us aggressively, shoulder to shoulder, press upon the attention of the medical profession a true conception of the importance and value of the services of the pharmacist.

A single idea converted into action is better than a thousand ideas that are unexpressed.

The penny's worth that is sold spells bigger profits than the dollar's worth that stays on the shelf. "A bird in the hand is worth two in the bush."

Say it, with as many frills as you like, the point is this: *Do something*, DELIVER THE GOODS, PRODUCE.

Drinking Cups and Soda Glasses in Colorado.

Colorado is a State to which sufferers from tubercular disease go from all over the country, so a law against the common drinking cups and ordinances against indiscriminate spitting have a peculiar significance there.

At the recent meeting of the Colorado Pharmaceutical Association Charles M. Ford, who has long been a leader in many movements to improve the condition of pharmacy and the public in that State, read a paper in which he discussed the new law there against the public drinking cup and advised druggists to look to their soda glasses.

Two years ago, he said, when Kansas wanted such a statute, many thought it but another example of the freak laws for which that State has acquired an unenviable reputation. Now Colorado has just such a statute. Mr. Ford might have added that so has New Jersey.

Colorado druggists are most concerned about that feature of the law which requires "adequate sterilization" of soda glasses. Mr. Ford says that such sterilization may be brought about by heat only when as high a temperature as 212° F. is employed. As gas and water are plentiful in most drug stores, he calls upon druggists to arrange to wash their soda glasses in boiling water. "Who will be the first," he asks, "to hang this legend above his soda counter: 'All drinks served from adequately sterilized glasses'?" He prophesies that the druggist who does this will reap his reward in plaudits and shekels.

Incidentally, it might not be a bad idea for druggists in other States not to wait for a law requiring them to do this, but to win plaudits and shekels by going ahead of the law and doing it anyhow.

The Dangerous Character of Wood Alcohol.

The dangerous character of wood alcohol is discussed in a paper read at the 1911 meeting of the New York State Pharmaceutical Association by Otto Raubenheimer; which paper was suggested by instructions to the delegates of the New York Branch of the American Pharmaceutical Association to the State meeting. The author gives a brief note on the history of the substance, mentioning the efforts made to introduce it into pharmacy, and the disastrous re-

sults which have followed; quoting reports from the journals of fatal poisoning and of total blindness following its use; such results having followed exposure to the vapor alone. The author notes that notwithstanding these facts "paint shops, department stores, druggists, and pharmacists frequently sell wood alcohol without a poison label, a direct violation of the pharmacy law, as it is one of the articles in schedule B." Some of the labels, he remarks, even recommend it for external application. It is also sometimes labeled "acetone alcohol" without a poison label. The purified spirit is free from acetone. Some physicians are to blame, says the author, as they frequently direct wood alcohol to be used as an external application, especially when the patient is poor. He mentions a case in which he warned a patient of this danger; the physician was again consulted and the patient assured that the spirit was harmless. The author believes that the application of the name "alcohol" to wood spirit "is responsible for the use of this cheap poison in place of the more expensive ethyl alcohol." In Minnesota the spirit must be labeled "wood naphtha," and also "poison." Attention is called to the federal law prohibiting the use of denatured alcohol (which contains wood alcohol) in flavorings, beverages, perfumes, and in all medicinal preparations. The paper concludes with recommendations to the association to discourage the use of the name "wood alcohol," favoring the title "wood naphtha," to condemn the use of the spirit in any preparations for either external or internal use, and to take steps for legislative action on these lines.

Tenacious Insecticide Sprays.

When destroying insects it is of importance to insure a close adherence of the toxic wash or sprayed liquor. The addition of a small quantity of an alkaline soap has been suggested to facilitate this, but it is now shown that the saponins are still more effective, are more widely applicable, and have no action on the vegetation. The fruit of *sapindus utilis*, a tree which has been cultivated for a considerable time in Algeria, is very rich in saponin, and Gastine (*Compt. rend. through Jour. Soc. Chem. Ind.*) reports that 2 grammes of the powdered *sapindus* fruit in 10 liters of water will produce a very fine emulsion with 700 grammes of tar oil. Preferably a heavy tar oil (specific gravity 1.045) and a lighter oil (specific gravity 0.950) are mixed in such proportions that the density of the mixture is about that of water. The surface tension of the saponin solution is lowered by the addition of the mixture of oils and the final mixture has a marked wetting power. Copper salts may be added without increasing the surface tension. A very efficient mixture is water 10 liters, *sapindus* powder 20 grammes, normal copper acetate 100 grammes, mixture of oils (specific gravity 1) 200 c.c. (mils).

Someone has observed that the invasion of England by the American soda fountain may sap the English society drama at its tap-root, which is grounded in tea. And now the life of another form of literature is endangered on account of the invasion of Chinese waters by the American motor boat, for what would war correspondents in the Orient do for copy but for the man on the junk? Is nothing sacred to the iconoclasts?

Abstracts

Warning Against Maretin.

Heubner (*Therap. Monatshefte* through *Journ. Am. Med. Asso.*) protests against some advertising literature recently sent out by the firm making maretin which commends the drug as an antipyretic, especially for the fever in phthisis, the advertisement stating that, according to Prof. Dresser's exact experiments, maretin is not a poison for the blood. This last statement is contrary to reports on the drug that have been published by various clinicians which Heubner cites, and he relates the results of numerous experiments of his own which demonstrate that maretin has a powerful action on the blood, inducing pronounced anemia. It is an excellent means to induce experimental anemia, and the number of cases in which the blood has been injured by maretin is shockingly large, he says, far too large to be shielded by the acceptance of an idiosyncrasy. He adds that the career of maretin is typical: first laudatory reports from clinicians, then words of doubt, warnings and reports of bad by-effects, then a pause; then after a long period of silence, a new propaganda campaign on the part of the manufacturers. Unfortunately, this career of the drug has also a serious side: A leading firm of manufacturing chemists has here overridden the fundamental principles of ethics, for it is unquestionable that a physician would obtain an entirely different idea in regard to the value and disadvantages of maretin from the postals sent out by the manufacturers from what he would obtain by reading up the articles on maretin that have been published in the medical press, especially the warnings by Krönig, Benfey and Steinhauer, in 1905. Heubner adds that it would be well for us to remember that the firm's action in this case might be followed by an aggravation of the condition of hundreds of patients, and that the firm was willing to take this action in spite of its fine equipment and the co-operation of medical experts, including a prominent pharmacologist. What goes on in the inner circles of a commercial enterprise, he continues, is not always above all reproach, and only the liveliest critical co-operation on the part of the rank and file of the profession and its leaders is able to confer the greatest attainable sense of security.

Colorimetric Determination of Antimony.

Schidrowitz and Goldsbrough (*Analyst*) say that the coloration produced by passing hydrogen sulphide through a solution containing small amounts of antimony can be employed as a means of determining the quantity, if solution of acacia is used to cause the precipitate to assume the colloidal condition. If the solution is hot when the hydrogen sulphide is passed in, the colors will be deeper in tint. Ordinarily the use of solutions at ordinary temperatures will suffice (down to 0.02 mgm. Sb). The standards are made up by dissolving weighed amounts of tartar emetic. Comparisons are made in bulks of 10 c.c. (mils) to which in every case is added 0.1 c.c. (mil) of a 10 per cent. solution of acacia. The solutions are then saturated with hydrogen sulphide. Of course, other members of the hydrogen sulphide group interfere. Organic matter does also. In case of the presence of such substances, the antimony may be precipitated

out by heating with metallic copper, and then dissolved off the copper by warming with potassium hydroxide and a little permanganate. After filtering from the copper, etc., the excess of permanganate can be destroyed by tartaric acid and aliquot portions of the solution submitted to the test.

Fresh and Dry Belladonna and Hyoscyamus.

Danckwortt (*Arch. Pharm.* through *Pharm. Journ.*) in consequence of the replacement in most pharmacopœias of the old green extracts of belladonna and hyoscyamus by those from the dry drugs has made a comparative estimation. Six extracts were accordingly prepared as follows from the same lot of belladonna, collected when flowering: (1) the whole sub-aerial herb was pressed and an extract prepared by the method of the Ph.G. IV. (2) A similar extract was prepared from the fresh leaves only. (3) A portion of the fresh herb was carefully dried so that it retained its green color, the weight of the dry product in coarse powder constituting 12.66 per cent. of the weight of the fresh; an extract was made by percolating this with 70 per cent. alcohol until Mayer's solution showed that no more alkaloid was being extracted, and evaporating the percolate to extract consistence. (4) Another portion was dried and percolated in the same way, the alcohol distilled off, and the precipitated chlorophyll and resin filtered out, and the filtrate evaporated to extract consistence. (5) This was prepared in the same way as (3), but from the leaves only. (6) This was prepared in the same way as (4), but from the leaves only. The alkaloidal content and ash of each of the extracts was ascertained by analysis; the amount of moisture was also determined, and the alkaloid and ash figures calculated for extracts of uniform content of 15 per cent. of water. The following results were obtained (all figures in percentages):

	Yield of Extract		In Extract	
	Of Fresh Drug.	Of Dry Drug.	Ash.	Alkaloid.
(1).....	1.88		19.03	1.699
(2).....	2.02		18.91	1.207
(3).....	3.97	31.30	17.34	1.917
(4).....	3.37	26.60	19.05	2.203
(5).....	5.38	29.88	12.35	1.282
(6).....	4.52	25.55	14.67	1.407

The figures seem to show that (a) the leaves contain less alkaloid than the whole herb; (b) by percolation of the dry drug an extract is obtained richer in alkaloid than by evaporation of the pressed-out juice, and also a larger yield; (c) the dried leaves give more extract, but less alkaloid than the dried herb. It is also pointed out that 10 per cent. of moisture, adopted by the Brussels International Agreement, is too low for a thick extract, and 15 per cent. is proposed. Extracts were also prepared from henbane: (1) from the fresh herb by the method of Ph.G. IV. and (2) from the dried leaves by percolation. These were analysed, and the figures corrected to represent extracts containing 15 per cent. of moisture. The results were as follows:

	Yield of Extract		In Extract	
	Of Fresh Drug.	Of Dry Drug.	Ash.	Alkaloid.
(1).....	1.7	...	19.24	0.146
(2).....	1.7	20.5	15.80	0.355

The general conclusion being thus similar to that in the case of belladonna (except as to the proportion of alkaloid in the leaf and herb).

Separation of Urobilin from Urobilinogen.

Fresh urine, it is said, never contains urobilin, but only its chromogen, urobilinogen, which, when the urine is shaken with chloroform, is dissolved by the latter, and gives, after being oxidized to urobilin, the characteristic green fluorescence with alcohol zinc acetate solution. Urobilinogen can also be detected in the chloroformic solution by Ehrlich's reagent (paradimethylaminobenzaldehyde) in the presence of alcohol. When, according to Grimbert (*Compt. rend.*), the chloroformic solution of urobilinogen is shaken with a solution of disodium phosphate, neutral to phenolphthalein, only free urobilin is taken up by the aqueous liquid, while the chromogen remains in the chloroform. For separating urobilin from its chromogen the following method is recommended by the author. The urine is shaken with chloroform, the chloroformic solution filtered through cotton and the filtrate mixed with an alcoholic 0.1 per cent. solution of zinc acetate until the precipitate first formed is redissolved. A green fluorescence shows the presence of free urobilin. If the latter is present, the chloroform is first shaken with a few c.c. (mils) of a disodium phosphate solution, neutral to phenolphthalein, by which the urobilin is extracted. The chloroform when then treated with an alcoholic zinc acetate solution does not give a green fluorescence, the latter, however, being produced by the addition of a trace of iodine, when urobilinogen is present.

Reaction for Glucuronic Acid.

If a small amount of glucuronic acid is dissolved in one-half c.c. (mil) of hydrogen dioxide solution and the solution is mixed with 1 or 2 drops of a 15 per cent. alcoholic solution of the b-naphthol an emerald green color will be produced on the careful addition of 3 to 4 drops of concentrated sulphuric acid; on shaking, the liquid will acquire a blue color. According to Goldschmied (*Zeit. physiol. Chem.*) this test can be applied for the identification of coupled glucuronic acids in urine also. One-half to one c.c. (mil) of urine mixed with two drops of the naphthol solution is carefully poured on 3 or 4 c.c. (mils) of concentrated sulphuric acid. A violet ring will appear at the zone of contact of the two liquids. After allowing to stand for fifteen minutes and shaking, the liquid will be colored emerald-green. According to the author the presence of 8/1000 of a milligram of glucuronic acid in urine can be proven by this reaction.

Artificially Cooled Hospitals.

Woodruff (*Am. Medicine*) thinks it amazing that the medical profession has made so little therapeutic use of cold-producing machinery. He instances the increase in mortality from many diseases as the temperature of the atmosphere rises, and the corresponding benefit when it falls. There is no reason, he says, for helplessness; it is a simple matter to cool the air of hospitals. The system is in practical operation in other buildings and has been for many years. All that is needed is a "steam-coil" or "radiator" in which cold brine circulates instead of hot water. Instead of "radiating" heat, it is an "absorber," and the air forced around the pipes may be cooled to any required degree. The pumps and fans being run by

electricity, there is no engine to bother with, and the ammonia which may leak out will not annoy one if the apparatus is in the basement. The air is damp when it leaves the coils, but it warms up en route to the room or can be warmed so as to be delivered dry. The coils, of course, drip moisture deposited from the air as it is cooled and can not be put in the living room. The air should be delivered near the floor, and the escape valves put at the ceiling for the warmed impure air. From personal experience of the benefit of the reduction of air temperature by storms in the tropics, the author has no doubt that if all tropical hospitals were so equipped the record of cures would be several times what they now are, and the home-going stream of invalids enormously reduced. Panama needs such rooms and so do the Philippines.

Diluent for Leucocyte Counting.

Pitfield recommends (*N. Y. Med. Journ.*) for use in counting leucocytes, a diluting fluid made as follows: Dissolve 20 grammes of acacia in 50 c.c. (mils) of distilled water; add to this solution 50 c.c. (mils) of glacial acetic acid, and 0.1 gramme of gentian violet; mix well; warm; and, while warm, filter through a wet filter. The advantages of this fluid are its viscosity, which precludes its flowing out of pipettes too easily; that pipettes can be filled more accurately; that neater definite-sized drops may be slowly put into the counting chamber; filled pipettes may be carried without fear of spilling the contents; the leucocytes do not settle in the mixing chamber quickly, and remain evenly distributed throughout the fluid; the end of the pipette must be wet before the fluid can be blown out; the end of the pipette is sealed with the acacia. The fluid has its disadvantages: It takes longer to suck up the diluting fluid and a little longer to mix blood and fluid; the fluid is sticky; and pipettes are harder to clean. But the greater ease of controlling the fluid and accuracy recommend it to busy operators.

Increasing the Solubility of Thiosinamine in Water.

The solubility of thiosinamine in water is increased by the addition of sodium salicylate. Since many persons have an idiosyncrasy toward the salicylates other substances were tried to replace the latter. Merck (*Chem. Zeit.*) has found that the addition of sodium baborate, sodium benzoate, sodium cinnamate, glycolcol, and urethane likewise increase the solubility of thiosinamine in water. If, for instance, the aqueous solution of one molecule of thiosinamine and one-half a molecule of sodium baborate is evaporated to dryness, a crystalline residue will be obtained which is very soluble in water.

Estimation of Glucose.

Selvatici (*Rev. pharm. Flandr.*) proposes the following method for estimating glucose, using potassium ferrocyanide as an indicator. In a test tube, 25 cm. long and 35 mm. wide, a mixture of 10 c.c. (mils) of Fehling's solution and 10 c.c. (mils) of an aqueous 15 per cent. solution of potassium ferrocyanide is heated to boiling. From a burette the liquid under examination is then added drop by drop until the mixture has become colorless.

Estimation of the Acidity in Hydrogen Dioxide Solutions.

Woehler and Frey (*Ann. chim. analyt.*) have found that the acidity of hydrogen dioxide solutions can be accurately determined by titrating with N/10 alkali, using phenolphthalein or methyl orange as an indicator. The titration of the acid in the presence of the former indicator can be carried out in the cold, without previously destroying the H_2O_2 , if the percentage of the latter does not exceed 3 per cent. The authors recommend, however, the use of correction factors, which they have determined by numerous experiments. It was also found that natryl hydrate, which, according to Tafel, is formed by the action of hydrogen dioxide on sodium hydroxide, is a much weaker base than the latter and acts like ammonia towards phenolphthalein and methyl orange. The authors further found that by using two drops of a 0.04 per cent. solution of methyl orange the acidity in solutions containing as high as 30 per cent. of H_2O_2 can accurately be determined. This indicator naturally can be used only for the estimation of mineral acids; if organic acids or boric acid are present, phenolphthalein has to be used and if solutions with a high percentage of H_2O_2 are to be titrated the latter has previously to be destroyed by the addition of platinum black or by other means.

A New Alkaloid of Corydalis.

The isolation of a new alkaloid from corydalis tubers has been reported by Gadamer (*Arch. Pharm. through Journ. Soc. Chem. Ind.*), to which has been applied the name corycavidine. The free bases were converted into the thiocyanates and the latter were crystallized from alcohol, being separated into portions sparingly and easily soluble therein. Corycavidine was isolated from the portion readily soluble in alcohol. The base has the composition, $C_{22}H_{25}NO_5$, and crystallizes from chloroform with one molecule of the solvent. It melts at 212° to 213° C., and has a specific rotatory power of $+203.1^\circ$ in chloroform. The molecule contains two methoxyl, and one N-methyl group. On exhaustive methylation it yields a methine base, melting at 141.5° to 142.5° C., an unsaturated substance containing no nitrogen, and trimethylamine. When corycavidine is heated it is converted into an optically inactive base, melting at 193° to 195° C. after crystallization.

A New Glucoside from Digitalis.

Kraft (*Schweiz. Woch. through Chemist and Druggist*) has isolated a new glucoside from the leaves of digitalis purpurea, which he has termed git-alin. It is an amorphous white powder, giving a crystalline hydrate melting at 75° . It is soluble in 600 parts of water, and in all proportions in chloroform.

Some Derivatives of Gelsemine.

Moore (*Proc. British Chem. Soc.*) says that gelsemine, $C_{20}H_{22}O_2N_2$, is stable towards alkali hydroxides and reducing agents, but with oxidizing agents the molecule is decomposed, and no definite products have been obtained by this means. On boiling gelsemine with concentrated hydrochloric acid for some hours, three new bases are formed, which have been designated as apogelsemine, isoapogelsemine, and chloro-isoapogelsemine. Of these, apogelsemine,

$C_{20}H_{24}O_3N_2$, is the chief product of the reaction, and although it cannot be crystallized, it yields well characterized, crystalline derivatives. Chloro-isoapogelsemine, $C_{20}H_{23}O_2N_2$, and its hydrolytic product, isoapogelsemine, $C_{20}H_{24}O_3N_2$, are only formed in relatively small amounts. Both these bases crystallize readily.

Detecting Benzene in Gasoline.

Halphen (*Mat. Grass. through School Mines Quart.*) says that benzene is often used as an adulterant in or partial substitute for gasoline sold for use in engines. The specific gravity is something of a guide to the presence of the adulterant, gasoline having a gravity of 0.702 to 0.803, while the mixtures run from 0.750 to 0.760, benzene being 0.880. For the quantitative determination of benzene the author suggests nitrating by the slow addition of 10 c.c. (mils) of fuming nitric acid (4 or 5 drops at a time) which is kept cool, the mixture being frequently shaken. After nitration, 10 c.c. (mils) of water are run in, a little at a time, and then 40 c.c. (mils) at once, when by shaking the nitrous vapors are absorbed. The oil is eventually treated in a graduated cylinder with concentrated sulphuric acid and the increase in bulk of the acid is read off. This increase multiplied by 0.87 gives the volume of benzene present. As most oils are acted on to some extent by H_2SO_4 alone, it is necessary to precede the operation by shaking with some concentrated H_2SO_4 and using the purified material for the test.

Injurious Effect of Alcohol Denatured with Wood Naphtha.

Horbaczewski (*Est. Chem. Zeit. through Journ. Soc. Chem. Ind.*) reports that the Bohemian sanitary authorities recommend that the use of wood spirit should no longer be permitted for denaturing alcohol for any purpose, as it is found that the health of those working with such denatured alcohol is liable to be seriously affected by the more or less poisonous impurities contained in the wood spirit, the spirit itself being also more poisonous than ethyl alcohol. For polishing and lacquering it is already permitted to use alcohol denatured with 5 per cent. of oil of turpentine or with pyridine bases, both relatively harmless mixtures, but the use of shellac is advocated as a denaturing agent for these industries. It may be added that it is well established that the toxicity of methyl alcohol includes a specific effect on the optic nerve, causing permanent blindness and that this effect as well as others may occur from exposure to its vapors.

Benzol Poisoning.

Oxholm (*Norsk. Mag. f. Lægevidenskaben through Journ. Am. Med. Asso.*) reports a fatal case of poisoning apparently caused by benzol. A man was wiping out the inside of a septic tank with a proprietary preparation used for the purpose, called siderosthen, when he collapsed, and died soon after being removed from the tank. The substance contained benzol and the author ascribes the fatality to this, reviewing what has been written on benzol in the literature. Schmidt-Nielsen has recently reported a case of poisoning from benzol fumes, emphasizing the importance of ample ventilation when benzol in any form is used in manufacturing.

Notes and Queries.

NOTICE.—It is desirable that all questions to be answered under this head should be received before the fifteenth of the month and they must be accompanied with the name and address of the writer.

Queries are not answered by letter. The information supplied in these columns is intended for the benefit of our readers in general, not for the profit of the individual inquirer only.

Sterilization of Organic Arsenic Preparations.—"Hospital Pharmacist," Illinois, writes: "I should like to have some information on sodium cacodylate, atoxyl, salvarsan, etc., as to the amount of heat that may be employed with safety in making sterile solutions."

Because of the comparatively recent introduction of the organic arsenic compounds, and particularly the hypodermatic and intramuscular injection of them, there is a paucity of literature on their pharmacal preparation. We have found no direct reference to the effect of heat upon sodium cacodylate and atoxyl but are led to believe they are not decomposed by a temperature of 100° C. by the statements made in several French pharmacal works as to their solubility in boiling water. This belief is strengthened by a statement made by Dr. S. L. Dawes in a contribution to a recent number of the *Journal of the American Medical Association* on "The Therapeutic Value of Sodium Cacodylate." Dr. Dawes said:

My present method [of administering sodium cacodylate intramuscularly] is to have the pharmacist weigh out for me a number of doses: 0.1 gramme, 0.15 gramme, 0.2 gramme, and 0.3 gramme, and place them in sterile half-dram vials, tightly corked; this protects this most hygroscopic drug from the effects of the atmosphere. At the time of injection, the dry salt is emptied into the barrel of the sterile syringe into which boiling water is drawn until all the salt is dissolved.

Relative to salvarsan, we submitted our querist's communication to Victor Koechl & Co., the American licensees for the sale of that substance, and they replied as follows:

Salvarsan (Ehrlich's 606) is, as contained in the ampuls, absolutely sterile. The recommendation is made on the circular of instructions enclosed, that solutions be made, before applying, with distilled sterilized water, or that sterilized physiological salt solution be used as a menstruum. The technic requires further that all apparatus, utensils and reagents, as well as the hands of the operator should be sterilized before beginning to make the solutions and when this is accomplished, no further sterilization is needed.

We would hesitate to inform you that solutions of salvarsan could be sterilized after making. Heat, even of a moderate degree above body temperature, would doubtless disturb the chemistry of salvarsan. Further we would like to state that remaining portions of a salvarsan solution, those kept from one operation to another, should never be used. We think it altogether probable that your correspondent has this in mind, in asking how to sterilize salvarsan solutions. We would advise you to make this perfectly plain, that remaining portions of salvarsan in powder form or solution should be destroyed and never used on a second patient.

Ascertaining the Strength of Hydrofluoric Acid.—V. L. C., New York.—Inquiry among the makers of chemical apparatus has not enabled us to find a hydrometer suited to your purpose. It is obvious that an ordinary glass or metallic instrument would not answer the purpose; and the easiest way to get around this would be to take a typical glass acidometer, coat it with paraffin by dipping it in the melted

fat, and compile a table of constants by testing known dilutions of HF. The difficulty of preserving the coating and the weight of this instrument would probably be not the least of the drawbacks incident to its use.

A suitable instrument could perhaps be made of a piece of hard-rubber tubing weighted with lead and standardized in known dilutions. As hydrofluoric acid does not attack lead to a perceptible extent, a lead pipe might be employed instead of the hard-rubber tube.

Because of the difficulty of standardizing such an instrument it would seem to be much more practicable to ascertain the specific gravity by weighing a sample of the acid in a tared paraffin capsule and comparing the gravity with a table of weights of known dilutions. Watt says that the concentrated acid has the specific gravity 1.250 and that a gravity of 1.150 denotes an acid containing 35.37 per cent. of HF. The acid is constant under ordinary conditions when containing from 36 to 38 per cent. of HF.

All in all it would seem that to determine the percentage of HF volumetrically would be the simplest way to ascertain the quality of the acid. In undertaking such a determination it should be borne in mind that the commercial grades of the acid contain varying proportions of sulphuric acid, sulphurous acid, and hydrofluosilicic acid—a fact which interferes also with accurate calculations from specific gravity. A method for determining the real amount of HF is given in most text-books on volumetric analysis.

The greatest care should be taken to avoid getting the acid on the skin as it produces very intractable "burns."

Perfumes for Toilet Preparations.—G. W. S., Kentucky.—As a perfume for your massage cream you might experiment with the following:

Solution of heliotropin, (10%)	10 c.c. (mils).
Solution of cumarin (10%)	20 c.c. (mils).
Oil of rose geranium	20 c.c. (mils).
Oil of rose	5 c.c. (mils).
Oil of bitter almond	10 c.c. (mils).

A little experimentation will enable you to readjust the proportions of the ingredients to your desire, in case the foregoing mixture does not fulfil it.

As a perfumed vehicle for the hair tonic we offer the following:

Oil of bergamot	4 c.c. (mils).
Oil of lemon	3 c.c. (mils).
Oil of cedrat	7 drops.
Oil of clove	2 drops.
Oil of lavender	1 c.c. (mil).
Oil of petit grain	2 drops.
Oil of rosemary	1 c.c. (mil).
Oil of red thyme	1 c.c. (mil).
Saturated solution of artificial musk	5 c.c. (mils).
Saturated solution of rhodinol	10 drops.
Cologne spirit	400 c.c. (mils).
Orange flower water	30 c.c. (mils).
Rose water	120 c.c. (mils).
Distilled water	to make 1,000 c.c. (mils).

Some other formulas which might aid in securing a valuable individuality for your preparations appear in the CIRCULAR for November, 1910, page 574; and July, 1909, page 344.

To Distinguish Ethyl Alcohol from Methyl Alcohol.—R. A. S., Illinois.—Perhaps the most satisfactory differentiating test for ethyl and methyl alcohols is that suggested by Klein (*Journ. Ind. Eng. Chem.*), which is as follows:

A few cubic centimeters of the spirit are taken and to this are added 1 or 2 drops of selenic acid and a trace of silver bromide, or other halogen salt of silver. A white amorphous precipitate is obtained with ethyl alcohol. With methyl alcohol either no precipitate at all or a crystalline one with a clear supernatant liquid is obtained.

To detect methyl alcohol in ethyl alcohol the Hinkel method is most favored. This is, briefly, as follows:

Add to 1 c.c. (mil) of the mixture to be examined, 0.8 gramme of ammonium persulphate, and 3 c.c. (mils) of diluted sulphuric acid (1 in 5); then make up to 20 c.c. (mils) with water, and distil over five different portions of 2 c.c. (mils) each. The first two portions, which contain acetaldehyde, are rejected; the remaining three are tested for methyl alcohol by adding to the liquid a few drops of a $\frac{1}{2}$ per cent. solution of morphine hydrochloride, and underlayering the mixture with concentrated sulphuric acid. If methyl alcohol is present, a violet zone will be produced at the point of contact of the two liquids.

Other methods are described in the CIRCULAR for July, 1910, page 357; March, 1910, page 115; and October, 1909, page 520; and in a number of earlier issues.

White Camphor Liniment.—V. M., Kentucky.—We offer a few formulas; the first is one which has proven satisfactory in our hands.

I.

Camphor	100 grammes.
Ammonia water.....	225 grammes.
Sesame oil.....	675 grammes.

Dissolve the camphor in the oil; add the ammonia water, and emulsify by shaking.

II.

Camphor	100 grammes.
Ammonia water.....	375 c.c. (mils).
White of.....	1 egg.
Oil of turpentine....	to make 1,000 c.c. (mils).

Dissolve the egg-white in the ammonia water, and the camphor in the oil. Mix the two solutions and shake vigorously.

III.

Soft soap.....	75 grammes.
Camphor	50 grammes.
Oil of turpentine....	to make 1,000 c.c. (mils).
Distilled water.....	to make 1,000 c.c. (mils).

Triturate the soap with 100 c.c. (mils) of the water until the mixture is homogeneous; add gradually with constant trituration the camphor dissolved in the oil. When the mixture becomes creamy, triturate in enough distilled water to make the required volume. This is the British Pharmaceutical Codex formula for *liniment of turpentine*.

Bird Lime.—C. J. A., California.—The mode of preparation of this substance is quite simple. The middle bark of European holly, *ilex aquifolium*, is boiled in water for about eight hours, after which it is taken out and put in a suitable vessel and set away

in a cool place, sometimes in pits under ground, and allowed to remain for two or three weeks, during which time it ferments and becomes very viscous. A little water may be added to assist fermentation. It is then taken out, pounded into a paste, washed in running water, and kneaded till it is free from all impurities, or nearly so. Next it is placed in earthenware vessels and set aside for three or four days, when it again ferments and frees itself from impurities. It is then known as bird lime and is fit for use.

A similar process is employed in preparing it from mistletoe, elder and many other plants in which it is present.

Good bird lime is of greenish color, and should resemble boiled linseed oil in some of its physical properties, tenacity and stringiness, for instance.

A substitute for bird lime is made by boiling linseed oil until quite thick; or by melting together 7 parts of rosin with 3 of linseed oil.

Yellow Tinted Compound Syrup of Hypophosphites.—M. C. M., South Carolina.—In view of your statement that the solution of the ferric and the manganese hypophosphites was "rather dark," the yellow tint of the finished syrup is doubtless an indication of the change of some of the ferric salt into the ferrous state. This change may have preceded the operation of dissolving the salt, or it may, as you remark, have been occasioned by the improper application of heat in effecting solution. We are not quite sure that you used the official process, as you refer to "dissolving the iron and manganese hypophosphites in the acidulated water"; whereas in the official process it is directed to dissolve these two salts in water with the aid of the sodium citrate. The only suggestion we have to offer—you say that the chemicals were purchased as being of official quality—is that you look well to the storing and keeping of the salts; assure yourself of their quality and that of the water and the sugar; and eliminate all possibility of the reduction of the ferric salt by heat or atmospheric influence: it is well to make the solution of the ferric and the manganese hypophosphites in a stoppered flask.

Mullein Oil.—J. G. H., Massachusetts.—The following reference to this preparation is made in the United States Dispensatory, nineteenth edition:

An oil, produced by saturating olive oil with mullein flowers, during prolonged exposure to the sun, is used in Germany. . . . The mullein oils sold in pharmacies are of this nature, or, some of them, alcoholic tinctures.

King, in the American Dispensatory, says:

The [mullein] flowers, placed in a well-corked bottle, and exposed to the action of the sun, are said to yield an excellent relaxing oil.

The so-called homeopathic mullein oil is a tincture prepared from freshly gathered flowering plants by maceration with a hydro-alcoholic menstruum. The color of the tincture varies from a dark-brown when prepared with 50 per cent. alcohol, to greenish with 85 per cent. spirit or stronger.

Generally mullein oil is prepared by packing a suitable glass container rather tightly with the flowering tops of mullein, pouring in enough olive oil or cottonseed oil to fill the container, and exposing the not-too-tightly stoppered container to the rays of the sun for several months.

Solution of Aluminum Acetate.—John Roemer, New York, contributes the following constructive criticism of the official process for making Liquor Alumi Acetatis N. F.:

The National Formulary process for making solution of aluminum acetate is objectionable from a practical viewpoint in that the calcium carbonate does not form a perfect solution with the indicated amount of acetic acid. [It has been argued that the excess of calcium carbonate is intended to interact with the aluminum sulphate to form aluminum hydroxide and thereby assure a basic aluminum acetate. If this be the case the N. F. directions to "dissolve the calcium carbonate in the acetic acid," etc., are faulty.—Editor THE DRUGGISTS CIRCULAR.] And the amount of the salt that is dissolved being uncertain, when mixed with the solution of aluminum sulphate, will yield a product containing an uncertain percentage of aluminum acetate. Further, sedimentation, decantation and finally filtration will yield a solution at first perfectly clear, but subsequently becoming turbid.

Having recently been called upon to perfect a working process I found that the formula given herewith was all that is to be desired:

Calcium carbonate, U. S. P.....	130 grammes.
Acetic acid (90%).....	156 c.c. (mils).
Aluminum sulphate, U. S. P.....	300 grammes.
Water, a sufficient quantity.	

Mix the calcium carbonate with 350 c.c. (mils) of water; add the acetic acid in small portions, stirring after each addition; then heat over a free flame until the disengagement of gas ceases, keeping the volume constant by adding water from time to time as required. Dissolve the aluminum sulphate in 750 c.c. (mils) of water; add this to the hot solution of calcium acetate; and bring the whole to the boiling point. Allow to cool and stand for four hours and filter, adding sufficient water to make 1300 c.c. (mils).

We are indeed grateful to Mr. Roemer for his tangible display of interest in the Notes and Queries department. The subject to which he has added the foregoing valuable contribution is one of such wide import that we feel that he has merited the gratitude of American pharmacy. Mr. Roemer is a student and a worker; and we trust he will continue to favor us and our readers with the results of his labors.

Precipitation in Solution of Aluminum Acetate.

—J. W. H., Ohio.—The deterioration of solution of aluminum acetate is due to the loss of acetic acid and the absorption of carbon dioxide. It is believed that these actions are proportionate to the amount of calcium sulphate present. The precipitation may be considerably retarded and in many cases prevented by the addition of 0.25 per cent. of boric acid to the freshly prepared solution. By adding 0.5 per cent. of boric acid to a solution in which precipitation has already taken place it is often possible to restore the liquid to its normal appearance.

Like many other untoward results in pharmacal operations, this precipitation may be more easily prevented than remedied. In the preceding note, one practical pharmacist describes his method of overcoming the difficulty; and in the CIRCULAR for January, 1911, page 41, and August, 1909, page 401, appear descriptions of other processes for making a permanent solution. In the issue for May, 1908, page 224, appears an exhaustive note on "The Chemistry of Solution of Aluminum Acetate," a valuable reference in this connection.

To Decolorize Reddened Phenol.—R. S. C., Idaho.—You might try shaking each liter of the liquefied phenol with about 3 grammes of white woolen threads. Zinc dust has been recommended

for the same purpose. Another plan is to add alcohol to the phenol and reduce the temperature until the latter crystallizes out, colorless.

It has been stated that the red color which develops in phenol is caused by phenoquinone, which, in turn, is formed by oxidation and condensation when quinone or catechol is present. The addition of $\frac{1}{4}$ of 1 per cent. of sulphurous anhydride to liquefied phenol is said to prevent the coloration of the latter. The chemistry of the color has been studied by Gibbs (*Philip. Journ. Science*; 1908) and Külb (*Pharm. Zeit.*, 1905).

Compound Solution of Cresol.—There is apparently an unflagging interest being taken in the efforts to perfect a process for this popular preparation. Experimenters in this field are legion; and it seems that, as in all human endeavor, the personal equation is a most potential factor. The latest contribution on the subject that reaches us is from H. W. S. Carter, Indiana, who writes as follows:

The article in the August number of the CIRCULAR [page 419] on Cresol and Its Compound Solution, together with the large number of arguments and criticisms prevalent during the past five or more years, has caused me to sit up and say something. It has caused me to wonder if I am "away off" or if the "rest of them" are.

Being only a graduate in pharmacy, I have been loath to state my experiences with official preparations, expecting that in a short time some one better versed in the subject than I am would make it clear to me just *why* the preparations I have made have not been satisfactory. With one or two exceptions I have never had trouble with official formulas—one exception was with tincture of cudbear in the compound digestive elixir. I have made the compound solution of cresol, U. S. P., dozens of times, and have always had a perfect solution both in appearance and action. One physician has told me that he could not get a good solution at any of the other places in the city that he had tried, the other preparations being ropy or immiscible with water. He also stated that the one which I made was less irritating to the mucous membrane than a certain proprietary.

While I may not be as keen as others, it is my belief that the great majority do not treat the Pharmacopœia as *law*, but only as a handy reference book to save them the trouble of remembering names and quantities. Many allow little ideas of their own to creep in; and, often times, this is responsible for a failure to produce a perfect preparation. This and inaccuracy in weighing and measuring I believe to be the main reasons for so much trouble.

Despite his self-detraction, Mr. Carter appears to possess the valuable faculty of getting at the crux of a situation or condition, and the equally valuable faculty of adhering to the letter of his instructions. In pharmacy as in railroading or in military operations, these two attributes make much for success.

Preparation of Santalol.—L. A. S., Michigan.—Parry, in his Chemistry of Essential Oils and Artificial Perfumes, says that he prepared pure santalol in the following manner:

One hundred grammes of East Indian sandalwood oil of specific gravity 0.977 and saponification figure 0.44 and containing 94.1 per cent. of santalol were heated to 80° with an equal weight each of phthalic anhydride and benzene upon a water-bath for one hour; the acid esters formed were combined with alkali and dissolved in an excess of water. The aqueous solution was deprived of the non-alcoholic constituents by agitation with ether, repeated three times, and the acid esters were separated by the addition of diluted sulphuric acid; subsequently they were saponified by means of alcoholic solution of potassium hydroxide, and the santalol set free was deprived of adhering alkali and alcohol by washing it with water. The product obtained amounted to 85 per cent. of the oil used.

Quick-Drying Ink for Printing.—E. D. A., Illinois, wants a formula for blue and black inks to be used on a roll paper printing machine, quick-drying inks that will not smear when the paper is used for wrapping. It seems to us that an ink similar to that used for cancelling postage stamps would answer the purpose. Such an ink can be made as follows:

I.

Ultramarine 1 ounce.
 Linseed oil..... 1 ounce.
 Olive oil..... a sufficient quantity.

Reduce the ultramarine to an impalpable powder; triturate with the linseed oil and about 2 ounces of olive oil, and add enough olive oil to produce the proper consistency.

II.

Oil-soluble anilin blue..... 1 ounce.
 Crude oleic acid..... 1 ounce.
 Castor oil..... 8 to 10 ounces.
 Make a solution.

III.

Paris blue..... 10 parts.
 Ultramarine 20 parts.
 Borax 5 parts.
 Shellac 5 parts.
 Alcohol 30 parts.
 Water enough.

Dissolve the shellac in the alcohol, and the borax in 40 parts of water; mix the two solutions. Mix the pigments intimately, reducing them to the finest state of division; triturate or levigate the mixed pigments with the borax-shellac liquid, adding more water if necessary. The addition of a little glycerin may be necessary in a dry climate.

IV.

Ultramarine 2 parts.
 Gum arabic..... 1 part.
 Glycerin 4 parts.
 Water enough.

Dissolve the gum arabic in about 6 parts of water; mix with the glycerin. Triturate the pigment, which must be in the form of a very fine powder, with the liquid, adding more water as may be required.

For black inks lampblack or oil-soluble nigrosin are the pigments required. Anilin colors can be used for the inks in which the pigment is suspended, if made into a lake with china clay.

"Fast" Red Ink.—J. S. K., Missouri.—We have no reason to believe that the composition of the ink to which you refer has ever been divulged by the manufacturers. The so-called "durable" red inks, which may be what you desire, contain sodium silicate. Here are typical formulas:

Winckler's Durable Red Ink.

Carmine, finely powdered..... 6 parts.
 Solution of sodium silicate..... 75 parts.
 Distilled water..... 675 parts.

Triturate the pigment with the water-glass; gradually add the water; set aside for several days, and decant the fluid ink.

Böttger's Red Ink.

Carmine 5 parts.
 Sodium silicate..... 5 parts.
 Solution of sodium silicate, a sufficient quantity.

Triturate the carmine with the sodium silicate—both should be in the form of fine powder—and add enough of the solution to make a fluent ink.

If an indelible ink is wanted, a number of formulas may be found in the CIRCULAR for May, 1910, page 235; formulas for red inks of several types appear in the issues for October, 1910, page 516; and June, 1908, page 275.

Regents' Counts under the Old New York Pharmacy Law.—C. M., New York, writes:

What was the substance of that section of the rules and regulations of the old *New York State Board of Pharmacy* which referred to the preliminary education requirement necessary to enter a recognized college of pharmacy?

What I would like to know in regard to this is: Under the old board, that is, the one which was in force before the regents were connected with it, could a student enter a college of pharmacy under conditions, with the understanding that the conditions must be worked off before entering the second year of the course?

The present pharmacy law of this State was signed by Governor Hughes June 8th, 1910. The law in force prior to that time—and until the provisions of the later statute became effective—was the one passed in 1900, with various amendments. Section 233, subdivision 6, of that law provides that the school of pharmacy must "require as a condition for entrance a satisfactory examination in subjects designated by said regents of not less than twelve regents' counts or an educational equivalent acceptable to said regents." In "Handbook 11" issued by the education department of the State of New York, are given "law, rules and information" on the subject of pharmaceutical education. Under "Preliminary educational requirements" in this handbook there appeared then and remains still unchanged this rule: "The pharmacy student certificate issued by the department must be filed with the executive officer of the pharmacy school not later than December 31 of the year in which he enters on his first course."

These two quotations, we believe, cover the point raised by our present querist.

Sanford's Catarrh Remedy.—W. C. F., Texas.—Oleson's Secret Nostrums and Systems of Medicine (1894 edition) has the following to say concerning "Sanford's radical cure for catarrh":

Consists, according to an analysis made by Prof. A. B. Lyons, of a distilled extract of witchhazel, containing a little alcohol and glycerin, perhaps as much as 5 per cent. of the latter, and between 10 and 15 per cent. of the former (no exact determinations attempted), also an important constituent, morphine—quantity not estimated.

The "solvent" consists mostly of niter [potassium nitrate?] and bicarbonate of soda, with a small quantity of the yellow powder, insoluble or sparingly soluble in water—probably a vegetable powder.

In the Circular of Information to the Drug Trade distributed by the Indiana Board of Health in 1908 "Sanford's radical [sic] cure for catarrh" is reported to contain 10 per cent. of alcohol. As this circular was designed to tell the content of opiates as well as the alcoholic content, it would seem that the nostrum referred to did not contain any morphine. Because of pure drug and anti-narcotic laws many nostrum formulas have been subjected to a denarcotizing process during the past five years, as a result of which the drug world knows many of them no more: narcoticless "catarrh cures" are poor sellers.

Gold Dust.—O. D., New York.—We do not know the composition of this soap powder, but have seen it stated that it contains—

Water	8 parts.
Anhydrous sodium carbonate.....	49 parts.
Soap	43 parts.

Total 100 parts.

We are under the impression that all preparations of this class consist largely of powdered soap fortified by strong alkalies. A few recipes which may be of interest to you are here given:

Borax Soap Powder.

Soap	5 pounds.
Sodium hydroxide.....	3 pounds.
Sodium silicate.....	2 pounds.
Sodium borate.....	1 pound.

London Soap Powder.

Soap	6 pounds.
Sodium hydroxide.....	2 pounds.
Pearlash	1 pound.
Sodium sulphate.....	1 pound.

Chemical Soap Powder.

Equal parts of soap, sodium hydroxide and sodium borate, perfumed with oil of eucalyptus.

Dry Soap Powder.

Desiccated hard soap.....	28 parts.
Sodium carbonate (crystals).....	68 parts.
Anhydrous boric acid.....	1 part.
Boron nitride.....	1 part.
Ammonium chloride.....	1 part.

Other formulas may be seen in the issues of the CIRCULAR for last January, page 30, and for March, 1907, page 270.

Flavor for Syrup of Codeine.—A. B. C., Connecticut.—In the CIRCULAR for May, 1907, page 364, appears a formula for a syrup of codeine containing the phosphate of the alkaloid in a flavored vehicle. The vehicle is one with which we have had considerable practical experience, and one that pleased us and our physician friends. It is constituted as follows:

Syrup of orange flower U. S. P.	2 parts.
Syrup of raspberry U. S. P., 1890.	1 part.

In attempting to improve official preparations pharmacists should not lose sight of the fact that the federal food and drugs act and the statutes of a number of the States have provisions that apply in cases where officially named preparations are not of exact official composition.

Another oftentimes overlooked fact that we are led to mention again is that a great deal of time will be saved if a druggist will preserve his copies of the CIRCULAR so that he may consult them himself and not have to wait a month or more until somebody in this office does the consulting and the information is reprinted. We are glad to do this, but dislike to keep the querist waiting.

Paint and Varnish Removers.—J. W. Dempsey, New York, referring to the note on this subject in the CIRCULAR for July, page 355, writes that a saturated solution of sodium bicarbonate is a simple and sure paint and varnish remover. He says this is to be applied freely, when, after a few minutes, the paint or varnish may be washed off. The wood is to be thor-

oughly cleaned afterward. The same process will remove gold leaf from glass.

Mr. Dempsey adds that he hopes his note will prove useful, as he has found much of value to him in the CIRCULAR. We feel sure that it will, and thank him not only for the note itself but for his spirit of reciprocity, which we trust will be caught by all who have any ideas worth communicating.

Most of the formulas given in our note called for a strong alkali, and it is to this ingredient that the preparations made according to these formulas owe their property of dissolving the paint or varnish. The washing after the use of the remover is to prevent any of it from coming into contact with the new coat of paint or varnish, and removing that also. Vinegar or other acid applied after the removal of the paint or varnish will tend to neutralize any of the alkali left on or in the wood.

Persian or Dalmatian Insect Powder?—I. E. B., New York, inquires: "Which is the better insecticide for roaches, Dalmatian or Persian insect powder, and where can I obtain in quantity for the best price?"

Dr. A. B. Lyons (in Plant Names) is authority for the statement that the Dalmatian insect powder, made from flowers of *chrysanthemum cinerariæfolium*, is much inferior in activity to the Persian insect powder from *chrysanthemum carneum* Weber, or *chrysanthemum roseum* Weber. On the other hand, the United States Dispensatory states that the Dalmatian powder is "more powerful" than the Persian. A "very superior variety," it adds, is the Montenegrin, made from *chrysanthemum cinerariæfolium* growing wild in Montenegro. The superiority of the Dalmatian powder is believed in by George M. Beringer, who, in a paper read at the pharmaceutical meeting of the Philadelphia College of Pharmacy, in December, 1888, and printed in the *American Journal of Pharmacy* for January, 1889, page 1, says: "The Dalmatian insect powder has proven so superior to the Persian powder, that it has driven the latter out of the market."

Drug importers and brokers are the people from whom to obtain the flowers or powder in quantities at lowest prices. Of these there are many in this city, as will be seen by consulting a business directory. We feel that we should not name any one or two concerns to the exclusion of others.

Recipes for Family Medicines.—G. M., Illinois, requests a "good formula for a liquid cathartic for children and infants," and a formula "for use in stomach troubles, indigestion, dyspepsia, etc., powder or liquid."

We are sorry to have to refuse a request made in good faith by an old friend, but we believe that it is best for pharmacists to leave the selection of remedies for the ills of humanity to those who are qualified by special preparation and are licensed by law to make such selection. Those who undertake to prescribe medicines when they have not prepared themselves by special study for the rôle they assume, thereby place themselves in the class with quacks, and we feel sure that no conscientious pharmacist who gives the matter due thought will voluntarily enter that class. Let physicians prescribe and pharmacists dispense.

To Remove Superfluous Hair.—J. W. P., Missouri.—Chemical depilatories of the less harmful variety owe their virtue chiefly to a sulphide, barium sulphide being the favorite; but strontium sulphide is probably less poisonous. Those who are in a position to speak with authority say that the use of a chemical depilatory has no real advantage over the mechanical removal of superfluous hair by shaving. Perhaps there is a psychological advantage in the fact that chemical depilating is not generally believed to hasten the growth of the hair.

A typical formula for a barium sulphide depilatory is:

Barium sulphide.....	5 parts.
Powdered soap.....	1 part.
Powdered talc.....	7 parts.
Corn starch.....	7 parts.

For use, a teaspoonful of the powder is made into a paste with 3 teaspoonfuls of water, and applied in a moderately thick even layer with a lathering brush. After four or five minutes the paste is moistened with a wet sponge and after another five minutes it is washed off, the hair being removed with it.

A German depilatory which, it is said—with what authority we do not know—does not irritate the skin as does the ordinary sulphide preparation is made as follows:

Strontium sulphide.....	3 parts.
Starch	4 parts.
Water	16 parts.

Triturate the sulphide with the starch; add the water and stir well; when a smooth mixture is obtained heat it to the boiling point with constant stirring.

The liquid depilatories are usually saturated solutions of sodium monosulphide in freshly prepared lime water.

The use of a chemical depilatory by inexperienced or careless persons is sometimes followed by disturbing, untoward results. The pharmacist should assure himself that purchasers of preparations of this class are familiar with their application, and should warn them that he will not be responsible for any ill effects resulting from their use.

Freckle Cure.—L. W. H., South Carolina.—We know of no "cure" for freckles and doubt whether there is one. There are lotions which are said to remove the little brown spots from the skin, but some of these contain corrosive mercuric chloride or other active poison, and all, perhaps, do the skin more harm than good. Buttermilk, horseradish, lemon juice and other household remedies for the complaint are not unknown, and solution of hydrogen dioxide, about 10 per cent., in rose water to which a little glycerin has been added, has been recommended as a freckle lotion. As to the effectiveness of these applications, however, we are not in a position to speak with authority.

Coloring Petrolatum Green.—I. B. C., Minnesota.—As you have effectually concealed from us the purpose for which the green petrolatum is to be used, we might give you a process for producing the color which would unfit your petrolatum for that purpose. Chlorophyll is a harmless green color, and a good source of it for use in coloring petrolatum is crushed hemp seed, which may be digested in the oil. Maybe

a color so produced would not be bright enough for you. Any shade can be given to petrolatum with the "fat-colors" or oil-soluble anilin dyes, used singly or in combinations. First, get a dye of the required color: dissolve some of it in some melted petrolatum, and dilute the batch to the desired shade. However, some of the anilin dyes would render the petrolatum unfit for certain medicinal uses.

Formula for Making Chewing Gum.—E. S., Illinois.—Contrary to what seems to be a widely prevalent idea, the formula for making many preparations is of secondary importance, the prime consideration in such case as we now have in mind being the factory equipment and the ability, born of experience, to use it. An inexperienced man who has not the proper machinery can hardly expect to compete successfully with established concerns in the manufacture of chewing gum. As a suggestion, however, to those who wish to experiment, a formula is here given:

Gum chicle.....	122 parts.
Paraffin	42 parts.
Balsam of tolu.....	4 parts.
Sugar	384 parts.
Water	48 parts.

Dissolve the sugar in the water by the aid of gentle heat and pour the mass on an oiled slab. Melt the gum, balsam and paraffin together and pour on top of the syrup and work the whole together.

Other notes on this subject, with formulas, may be seen in the issues of the CIRCULAR for last February, page 83; June, 1907, page 416; September, 1905, page 317; December, 1905, page 434; June, 1904, page 133; and in still earlier issues.

To Determine the Absence of "Hypo."—L. G. P., Florida.—Sodium thiosulphate, generally spoken of as "hypo," has the property of bleaching solutions of a number of substances including iodine and potassium permanganate. This fact is taken advantage of in determining when a photographic negative or print has been sufficiently washed after fixing. Two of the reagents used for this purpose are given herewith.

I.

Potassium permanganate.....	3 grains.
Sodium hydroxide.....	15 grains.
Distilled water.....	1 pint.

Make a solution.

To 2 ounces of the water last used to wash the negative or print add about 5 drops of the permanganate solution. If there is any hypo present the pinkish coloration will soon change to a pale-green.

II.

Boil a pinch of starch in 3 ounces of distilled water. When cool add a few drops of a 5 per cent. alcoholic solution of iodine.

A drop or two of this liquid added to half a pint of the washing water will immediately be decolorized if the latter contains any sodium thiosulphate.

Zinc Chloride Mouth Wash.—W. K., Louisiana.—When you wrote your query you had not received the August number of the CIRCULAR, on page 417 of which is the information you desire, published at the request of another subscriber.

Code Prescriptions.—"Young Brother," Quebec, writes:

I receive every day code prescriptions as Dr. Diekman calls them in his article on ethical prescriptions in the last number of the CIRCULAR ["The Ethical Consideration of the Prescription" in the July CIRCULAR, page 345]. I should like to have some good suggestions to make the bearers of these prescriptions understand that it is not because of a lack of knowledge that I do not fill the prescriptions.

I think it would be my right to point out to my customers the connection existing between the doctors who write the code prescriptions and the druggists who can fill them but hesitate about making such a direct statement.

Any consideration we might give to the momentous subject brought up by our Canadian friend would at best be little other than academic, and the academic consideration of the subject has been as abundant as it has been futile. The matter is one which has as many phases as it has recurrences; and each recurrence has so much of the personal element in it that a general or panacean treatment is out of the question.

There will be occasions when a little missionary work with the physician will enable him to see his departure from the straight way of his profession. In other instances much can be accomplished by a campaign of education, for patient and prescriber, carried on through contributions to the public press. This is perhaps the most effective plan. There is nothing so potent toward remedying an evil as is aroused public sentiment. These contributions must be adjusted to the nature of the practice against which they are aimed. They should be kept free from unnecessary acerbity and should hold no hint of mercenariness. Reprints of the newspaper articles should be kept in the store and placed in the hands of every bearer of a code prescription with an appropriate explanatory remark.

Another channel of redress that is open to the pharmacist in many instances is in an appeal to the medical societies. Most of these have a code of ethics which includes a clause antagonistic to code prescriptions. Of course all writers of such orders are not members of medical societies, but it is often possible for the deserving druggist to enlist the aid of a society in shedding the light of publicity on the undesirable features of the practice.

Proper Proportion of Soap in a Tooth Wash.—C. J. L., California.—Relative to the cause and prevention of precipitation in saponaceous tooth washes Paul Caldwell, writing in the CIRCULAR for May, 1906, page 159, said:

Personal experience has taught me that by placing the saponaceous tooth wash on ice and afterward filtering, any excess of soap is removed and no further precipitate occurs. It might be well to add that the formula upon which this statement is based directs 55 per cent. of alcohol, and in a 48-gallon lot it was found that 4 pounds of soap was all that was retained in solution.

In the CIRCULAR for April, 1907, page 293, Mr. Caldwell describes his method of filtering tooth washes, etc., at a low temperature. The solubility of soap in diluted alcohol is diminished by the presence of an animal fat, pure olive oil soap being much more soluble than the so-called "white" soaps.

A typical formula for a good saponaceous tooth wash appears in the CIRCULAR for December, 1910, page 635.

Rose Water, Glycerin and Tincture of Benzoin.—R. H. W., North Dakota, is puzzled how to compound into a creamy lotion, without a sticky precipitate, the following:

Glycerin	1 ounce.
Tincture of benzoin.....	1½ drams.
Rose water.....	enough to make 4 ounces.

R. H. W. has had the most success with mixing the rose water and the glycerin in a bottle, pouring the tincture on top of the mixture, corking the bottle and slowly inverting it a few times. It was not quite in that way that we, in our days behind the mirrored screen, compounded the popular cosmetic, rose water and glycerin with benzoin. But, in the first place, we used the following proportions.

Tincture of benzoin.....	½ ounce.
Glycerin	8 ounces.
Rose water.....	7½ ounces.

Then we, having mixed the glycerin and the rose water thoroughly, added the tincture a little at a time, inverting the container gently after each addition. Even so, a small amount of a curdy precipitate would usually be formed, but the lotion was freed from this when dispensed. We fancy that this method would be satisfactory in our querist's case.

At the 1907 meeting of the American Pharmaceutical Association F. M. Apple described a method of combining the three ingredients under consideration into a smooth creamy mixture. His method, which is given in the Proceedings for that year, page 132, consists essentially in mixing the tincture with one-half of the glycerin—the proportions are practically the same as those given in the second formula herein—diluting this with about half the rose water, and adding the mixture of the remaining glycerin and rose water. The mixture is immediately strained through a fine-meshed straining cloth three or four times, the curd being rubbed through with a glass rod, transferred to a suitable container and thoroughly shaken.

Mothersill's Seasick Remedy.—E. B. P., New Jersey.—According to an analysis made in the laboratories of the American Medical Association, the pink capsule contains—

Chlorbutanol	46.1 per cent.
Caffeine	7.9 per cent.
Milk sugar.....	27.0 per cent.
Fatty acid.....	18.2 per cent.
Undetermined	0.8 per cent.

The brown powder was found to contain practically the same substances, except that instead of milk sugar, powdered cinnamon was a constituent.

Chlorbutanol has been used with more or less success in the treatment of mal de mer.

Free Carbon Dioxide in Tooth Pastes.—In a note to the CIRCULAR Paul Caldwell calls attention to the fact that carbon dioxide frequently is liberated in tooth pastes of which a carbonate is a constituent, and says that before such a paste is placed in tubes this gas should be driven off by heating.

Universal Balm.—G. F. D., Massachusetts.—We do not know the composition of this preparation. We ask the aid of anyone who is in a position to give it.

Waterproofed Portland Cement.—A. M. D., Massachusetts.—The method of using the substance, to which we take it you refer, to render Portland cement waterproof was patented April 23d, 1907. The following quotation from the specification of the letters patent contains the information you seek:

The invention is in part a process of rendering cement waterproof, which consists in mixing therewith a small percentage of an insoluble lime salt of a fatty acid, preferably stearate of lime, substantially free from glycerin or other soluble substance.

We believe that mixtures of calcium sulphate and a soluble sulphate or soluble silicate are used for a similar purpose. To what extent these are covered by letters patent we have not ascertained. A similar process which we have seen described consists in adding 1 per cent. of powdered alum to the mixed cement and sand, and using 1 per cent. of common yellow soap in the mixing water.

Practical men tell us that the admixture of something with the cement is not so satisfactory in producing a waterproof structure as is the use of a filler and paint upon the surface of the cement work. One process described to us consists in brushing over the surface several times with a saturated solution of zinc sulphate and painting over all with a good heavy paint. Solution of sodium silicate is used in the same manner as the zinc sulphate liquid; and experiments have been made with alum and with magnesium sulphate. Here are some formulas of another type:

II.

Rosin	50 pounds.
Heavy varnish	1 gallon.
Benzin	2 gallons.
Boiled linseed oil	1 gallon.
Slaked lime	4 ounces.

Dissolve the rosin in the benzin; add the lime, the oil and then the varnish, stirring well.

Apply with a stiff brush, giving several coats.

In making or using this, the extreme inflammability of benzin should be kept in mind.

I.

Quicklime	1 bushel.
Sodium chloride	8 pounds.
Rice flour	8 pounds.
Whiting	2 pounds.
White glue	2 pounds.
Hot water	enough.

Slake the lime with enough hot water to make a thin paste; add the salt dissolved in a minimum of hot water and the flour made into a thin paste with more hot water; and then add the glue. Mix the whiting with 10 gallons of hot water; stir into the other solution; and set aside for a week.

This mixture is to be heated to boiling when it is to be applied.

Removing Scratches on Plate Glass.—R. E. G., Rhode Island.—Slight scratches may be got rid of by rubbing the scratched surface with a piece of kid leather dipped in a paste made of jewelers' rouge and liquid petrolatum. If the scratches are deep it will be necessary to grind them out and repolish the surface of the glass. To do this the scarred surface is first rubbed down with water and emery flour, using at first a hard wood rubber then a lather-covered one. Very deep scratches may necessitate a pre-

liminary rubbing with sand and pumice. When the scratches have been eliminated, the ground surface is polished with jewelers' rouge or rotten stone and water with a felt or soft leather buffer. The most satisfactory results are obtained with a mechanical rubbing and buffing device.

It is said that slight scratches on a glass surface can be rendered less noticeable by flowing over the surface a solution of spermaceti in ether, letting it dry, and polishing with a piece of silk. An inexperienced user should be cautioned about the inflammability of the liquid.

Oil of Spike.—T. L., New Jersey.—Oil of spike lavender (*lavendula spica*) is known as oil of spike in painting and decorating circles. It is much used as a vehicle for applying pigments in ceramic decorating. Often there is sold as oil of spike *old* oil of turpentine or a mixture of 3 parts of oil of turpentine and 1 part of oil of spike lavender. This mixture may now be called "compound oil of spike" to comply with pure drug laws.

Another and totally different preparation that is named oil of spike is a veterinary liniment constituted somewhat as follows:

I.

Oil of turpentine	2 pints.
Barbadoes tar	1 ounce.
Alkanet root	½ ounce.

Mix the oil and the tar and digest in the mixture for a week the alkanet previously crushed.

II.

Oil of turpentine	8 ounces.
Linseed oil	8 ounces.
Oil of amber	4 ounces.
Oil of juniper	4 ounces.
Crude petroleum	4 ounces.

This preparation is sometimes sold for *British oil*. In some localities crude petroleum is sold as oil of spike.

Veterinary Vermifuge.—L. H. Howard, Missouri, contributes the following formula for a remedy which he says has been successfully used for worms in horses:

Powdered rosin	1 part.
Powdered bloodroot	1 part.
Powdered saltpeter	1 part.

The ingredients are to be intimately mixed; and a tablespoonful is given to the animal every other day, mixed with chopped food.

Doubtless there are many among our readers who will welcome the information given by Mr. Howard and will join with us in an expression of appreciation of his interest in the needs of his fellow practitioners.

Cheap Talc Powder.—G. T. H., Ohio.—Pulverized talc is so cheap, and the little china clay, starch, magnesium carbonate, orris root, boric acid, perfume, etc., added to it to render it an acceptable toilet article add so little to its cost, that it is hard to say how a talc powder cheaper than the ordinary kind can be made, except to direct that the lower-priced ingredients be used, and the more expensive of even these be employed more sparingly than the cheaper ones.

At wholesale crude talc sells for from \$15 a ton for the ordinary American or French, to as high as \$35

a ton for the fancy grades of Italian. By the time it is powdered, it costs the small dealer from 2 cents a pound up to perhaps two or three times that price, according to quality. When purified according to pharmacopœial directions, its cost is, of course, increased, but we believe U. S. P. purified talc is not the kind that is used in the toilet powders.

Liquid Veneer.—H. T. M., Iowa.—In the CIRCULAR for August, 1910, page 429, appears the following note:

A correspondent in the *Pharmaceutical Journal* (London) says that liquid veneer is a furniture polish "nosed" with amyl acetate and loaded with a little putty powder "as a blind." He gives the following as an equivalent formula:

Linseed oil.....	10 parts.
Vinegar	5 parts.
Spirit of salt.....	2 parts.
Amyl acetate.....	enough.
Putty powder [tin oxide].....	enough.

Other formulas for several types of furniture polish appear in the following issues of the present year: June, page 311; May, page 252; and February, page 82.

Parozone Bleach.—H. F. G., Ohio.—Pharmaceutical Formulas is authority for the statement that parozone is a textile bleaching fluid of a type represented by a solution of chlorinated lime from which the lime has been precipitated with alum or magnesium sulphate.

Elixir of Terpin Hydrate.—O. P., Kentucky.—A summary of the more satisfactory suggestions for improving elixir of terpin hydrate appears in the CIRCULAR for March, page 136. Three new formulas are given therein, and there is another in the April issue, page 189.

Greaseless Cold Cream.—W. B. M., Pennsylvania.—A note on this subject appears in the CIRCULAR for last month, page 418, which had not reached you when you wrote. We suggest that you consult the annual indexes to the CIRCULAR for the past four or five years.

Peterman's Discovery for Bed Bugs.—B. R. H., New York.—In the CIRCULAR for March we stated that we did not know the composition of this preparation, but said that kerosene perfumed with oil of sassafras seemed to be about the same thing.

Saratoga Ointment.—F. R. S., Iowa.—We do not know the composition of this preparation. If any one can supply information regarding it, we should be glad to hear from him.

Appeals to Readers.—Information is sought concerning the articles listed below. We ask for such help as our readers can give:

Tracy's Vegetable Healing Balm.—G. A. G., New York.

Tornado—H. S. C., Connecticut.

Asfalath—a perfume.—D. W., Mississippi.—What is it, chemically?

Palmer's Vegetable Lotion.—L. T., Ohio.

Saratoga Ointment.—F. R. S., Iowa.

Universal Balm.—G. F. D., Massachusetts.

Waterproofing Gun Cases.

FOR LEATHER CASES.

a. Gelatin	4 ounces.
Hot water.....	3 pints.
b. Solution of formaldehyde.....	1/2 pint.
Water	2 1/2 pints.

Apply solution *a* hot with a brush, over all the case. When the coating has dried brush over all with solution *b*. Repeat the two operations three times and allow the case to stand exposed to sunlight for several days, turning it about so that the light may act on the entire surface.

FOR CANVAS CASES.

a. Gelatin	5 parts.
Rain water.....	300 parts.
b. Alum	10 parts.
Water	300 parts.
c. Rosin soap.....	5 parts.
Hot water.....	300 parts.

Mix equal portions of *a*, *b* and *c*, and apply with a soft brush.

Thompson's Emulsion of Linseed Oil.

In a recent number of the *Medical Record*, Dr. W. H. Thompson gives the following formula for the emulsion of linseed oil which has become popular among physicians in association with his name:

Linseed oil.....	9 1/2 ounces.
Oil of gaultheria.....	80 minims.
Oil of cinnamon.....	80 minims.
Diluted hydrocyanic acid.....	80 minims.
Glycerin	190 minims.
Syrup	6 1/2 ounces.
Mucilage of irish moss, enough to make	2 pints.

Dr. Thompson says this emulsion can be prepared most satisfactorily in a churn.

Curry Powder.

Coriander	5 pounds.
Turmeric	1 1/2 pounds.
Fenugreek	12 ounces.
Black pepper.....	8 ounces.
Cumin	8 ounces.
Mustard	8 ounces.
Dill	4 ounces.
Pimenta	4 ounces.
African ginger.....	4 ounces.
Table salt.....	1 1/2 ounces.
Capsicum	1 1/4 ounces.

Grind the ingredients together to a fine powder.

Camphor Ice.

Camphor, in coarse powder.....	2 ounces.
Hard paraffin.....	2 ounces.
Glycerin	2 ounces.
White wax.....	5 ounces.
White petrolatum	8 ounces.

The directions, as given in the *British and Colonial Druggist* are: Melt the wax, hard paraffin, and petrolatum together over a water bath, dissolve the camphor in the melted mixture, incorporate the glycerin, and finally pour into moulds.

Indiana Board Questions.

Herewith are reprinted the questions used by the Indiana Board of Pharmacy at its examinations held in January. Other sets of questions asked by this board appear in the issues of the CIRCULAR for January, 1910, page 27, and July, 1908, page 326.

In reprinting board questions we endeavor to follow closely the nomenclature, spelling, punctuation and capitalization of the originals, our object being to give our readers, just as nearly as practicable, the questions as they were presented to the candidates.

Registered Pharmacist.

Pharmacy.

1. Define specific gravity. Why does the U. S. P. give the specific gravity?
 2. Define rancidity. Can oils, when rancid, be purified? If so, how?
 3. Explain the difference between cerates and ointments, as to consistency and mode of use.
 4. In making a pill mass, what class of drugs would you use petrolatum as an excipient? also soap; syrup. What objection to using syrup of acacia as an excipient?
 5. How much corrosive sublimate in one ounce of a 1-2000 solution? How much water would you add to make it a 1-2500 solution?
 6. If potassium iodide is soluble in .7 its weight of water, how much would be required for a four-ounce saturated solution?
 7. Compound acetanilid powder contains 70% acetanilid, 10% caffeine, 20% soda bi-carb. How much of each required to make two ounces?
 8. What are suppositories? What are bougies? Give the weight of each when oil of theobromo is used as a vehicle. When a substance is used which softens the vehicle, what substance does the U. S. P. allow to be added to raise the melting point? State how you would make a rectal suppository, using oil of theobromo as a base.
 9. If a bottle holds four ounces (Av.) of water and 150 grams of another liquid, what is the sp. gr. of this liquid? What is the weight in grams of four ounces of a liquid sp. gr. 1.25?
 10. If official acetic acid contains 36% of absolute acetic acid, sp. gr. 1.045, how many grams of absolute acid in 500 c. c.?
 11. State the number of grains used in each of the pound weights used in pharmacy? Write in metric system the equivalent of $\frac{1}{4}$ gr., 1 gr., 1 teaspoonful.
 12. Comment on the following prescriptions:
- | | |
|----------------------------------|----------|
| R Hyg Chlor | gr. v |
| Aq. menth. pip. q. s. | oz. ii |
| M. | |
| Sig. Take as directed. | |
| R Tr. nucis vom. | dr. iii |
| Acid hydrochloric dil. | dr. ii |
| Pepsin (pure) | dr. i |
| Spt. menth. pip q. s. | oz. iiii |
| M. | |
| Sig. Dr. i t. i. d. as directed. | |

Chemistry, Posology and Toxicology.

1. What is an element? An atom? A molecule? Name and give symbols of ten elements. Elements are of two kinds. Name and describe two of each kind.
2. Name and describe ten chemical salts with which you are familiar, physical appearance, solubility, toxicity, formula, whether normal, acid or double salt, average dose and if poisonous name recognized antidote.
3. Syrup of Iodide of Iron contains 3.84 grs. of Ferrous Iodide per fluidrachm, how much Iodine will be required to make one pint of the syrup? (Fe=56, I=26.) Is the using of an excess of Iron permissible in making this? If not, why?
4. How could you distinguish HgCl₂ from HgCl? Give pharmacopoeal name of each. Is either a poison? If so, name it and describe it as to physical appearance, solubility in alcohol and water, average dose, character of its poisonous action and antidote.
5. Hydrocyanic Acid is made by the reaction between Silver Cyanide and Hydrochloric Acid. Why is Hydrochloric Acid used in preference to other acids? What is the tendency in all chemical reactions?

6. Complete the following equations; also write the entire equations in ordinary terms: $\text{ZnSO}_4 + \text{Pb} (\text{C}_2\text{H}_3\text{O}_2)_2 =$ $\text{Na}_2\text{CO}_3 + \text{FeSO}_4 =$ $\text{AgNO}_3 + \text{NaCl} =$
 $2\text{KI} + \text{H}_2\text{C}_4\text{H}_4\text{O}_6 =$

7. Liquor Calcis. Give common name. What salt of Calcium is directed to be used in making it? To what salt does it change when it comes in contact with the water? Give formula of that newly formed salt. Why does Liquor Calcis, when exposed to the air, throw down a precipitate? What is that precipitate? Show by equation the reaction.

8. The formula of Ferrous Sulphate is usually written FeSO₄. What does the Pharmacopoea mean by giving it as FeSO₄ + 7H₂O? How could you get rid of that 7H₂O? Tell the physical appearance of Ferrous Sulphate both before and after loss of the 7H₂O. What is the pharmacopoeal name of the changed salt.

9. Outline your favorite test for detecting albumen in urine. Also for sugar in urine.

10. Give the recognized average dose of each of the following: Morphine Sulphate, Atropine Sulphate, Strychnine Sulphate and Arsenic Trioxide. Select any two of these, name best antidotes and tell how to proceed, in case of an emergency, and before the arrival of a physician.

Materia Medica.

A Credit of 1 to 5 per cent. will be allowed for neatness and legibility of manuscript.

1. Define Botany, Pharmacognosy, Posology, Toxicology and Ecology.
2. Give family, habitat and parts used of Eucalyptus. Average dose of same.
3. What is a plant. Into what three general classes are they divided. Which division is most important to Materia Medica. Give reason for your answer.
4. Write in your own language, and not to exceed 100 words, an account of Mercury, as to source, official preparations, doses and medicinal uses.
5. What Alkaloids are obtained from Coffee, Tea and Cocoa. Give medicinal uses and doses of same.
6. Give official name, family habitat and medicinal properties of Burdock.
7. What is Ergot. What is its medicinal uses. What are its active constituents.
8. What is the source of Plumbi. What forms are official, giving their medicinal use, and when given internally, their dose.
9. What is Lycopodium, and what is its principal use. Same of Adeps Lanae Hydrous.
10. Give official names, medicinal uses and doses of Golden Seal, Dandeline, Poke Root.
11. What are Galenical Preparations. Give two that have alternative properties and their dose.
12. What important products does Thymus Vulgaris yield. Give medicinal use and doses.
13. Give Latin names for Buckthorn, Carbolic Acid, Witchhazel Leaves, Pennyroyal and Logwood.
14. What are the vegetative organs of plants. What are the functions of each.
15. Identify samples submitted.

Assistant Pharmacists.

Pharmacy.

What is specific gravity? What is the weight in grams of 1000 c. c. of glycerine having a sp. gr. of 1.25?

2. What preparation of opium is used in making tr opium? How many grains in four fluid ounces of laudanum?

3. Give the process by which the following are prepared: Prepared chalk; iodine; sulphur.

4. What effect would exposure to the atmosphere have on epsom salts, zinc sulphate, zinc chloride, ext. nux vomica, and iodine?

5. Define solution. Name two kinds of solution. Which is better for making a solution, crystal, powder or granular? Why? What are syrups? When should heat be used in making a syrup. What effect has alcohol on syrup?

6. What is a tincture? In what three official ways are tinctures made? What class of drugs are best adapted for each process? To what class of tinctures is glycerine added?

7. What is precipitation? What is the name of a liquid used to cause it? Give name to liquid remaining after precipitation.

8. For what purpose is a water bath—sand bath—used in pharmacy?

9. Define fusion; calcination; carbonization; sublimation; clarification.

10. If three grams of sodium chloride be dissolved in 27 grams of water, what is the percentage strength of the solution?

11. State the number of grains used in each of the pound weights used in pharmacy. Convert the following into metric system: $\frac{1}{4}$ grain, 1 grain, 1 teaspoonful

12. Comment on the following prescriptions:

R Hyg Chlor gr. v
Aq. menth. pip. q. s. oz. ii

M.
Sig. Take as directed.

R Tr. nucis vom. dr. iii
Acid hydrochloric dil. dr. ii
Pepsin (pure) dr. i
Spt. menth. pip. q. s. oz. iii

M.
Sig. Dr. i t. i. d. as directed.

Chemistry, Toxicology and Posology.

1. What is an element? An atom? A molecule? Name and give symbols of ten elements.

2. Give common names of Iron Sulphate, Zinc Sulphate, Lead Acetate, Liquor Calcis, Tincture Ferric Chloride, Phenol and Potassium Nitrate.

3. Give recognized average doses of Morphine Sulphate, Strychnine Sulphate, Arsenic Trioxide, Phenol. Which of these are not poisonous? Select and describe any one of these, which is poisonous, and name its best antidote.

4. What is meant by the following formulae: H_2O , H_2O_2 , HCl , H_2SO_4 , HNO_3 ?

5. What gas is given off during the effervescence of a mixed Seidlitz Powder? What two chemicals are present to cause this effervescence? What new salt is the result of this reaction? What do you understand by "chemical reaction?" Does heat hasten or retard chemical reaction?

6. Give common names of Hydrargyrum Chloridum Corrosivum and Hydrargyrum Chloridum Mite. Is either a poison? If so, which one? What is the best antidote in case of poisoning with it?

7. What is meant by the terms: acid reaction, alkaline reaction and neutral reaction? How can you tell whether or not a solution is acid, neutral or alkaline in reaction? Name two substances that are acid and two that are alkaline in reaction.

8. Glycerine, Specific Gravity 1.25, is quoted at 28 cents per pound. What will one gallon cost?

9. When exposed to the air Liquor Calcis throws down a precipitate. Why does it and what is the chemical name of that precipitate?

10. Of ten chemical salts with which you are familiar, tell their appearance, average adult dose and whether or not poisonous.

Materia Medica.

A Credit of 1 to 5 per cent. will be allowed for neatness and legibility of manuscript.

1. What is a Solvent. What Solvents are most commonly used. What is the best Solvent for gums.

2. Name two medicines used as Cathartics. Two used as Diuretics. Two used as Astringents. Two used as Cardiac Stimulants.

3. From what source do we obtain Aloin. Describe it, giving its medicinal use, and average dose.

4. Name five kinds of Roots, giving their medicinal properties and active principals, and average dose of each.

5. From what source do we obtain Santonin, Tannin, Tartaric and Benzoic Acids. Give the principal use of each.

6. Give the official name and medicinal properties of each of the following: Black Cohosh, Poke Root, Lady's Slipper, Dog Wood, Passion Flower, Dandelion and Mari-gold.

7. As applied to plant life define the terms: Annual, Perennial, Biennial. Give the name of a plant occurring in each.

8. From what source do we obtain Plumbi Acetate. What is its action and use. Give the average dose.

9. From what source do we obtain Adeps Lanae Hydrous. What is its principal use.

10. Give Latin names for White Oak Bark, Flax Seed and Sugar of Milk.

11. What is the source of Sodium Benzoate. What is its action and principal use. Give average dose.

12. Identify samples submitted.

The applicants were also given tests in identifying specimens and in practical work.

Tinting Photographic Prints.

Kieser (*Photo. Indust.* through *Chem. Drug.*) reports some results obtained in experimenting with the dyeing of photographic papers. The dyes which he has found most suitable are alizarin saphirol, for soft blue tone; naphthol green B, for soft green; chloromin brown G, for brownish tones; permanent bordeaux B, for purplish tones; brilliant crocein 3 B, for yellowish-red; and permanent light-yellow 3 G, for yellow. The dyes are kept in 1 per cent. stock solutions, and when required for use are diluted in the proportion of 1 in 10,000 parts of water. The well-washed bromide or gaslight prints are placed in the dye-bath and allowed to soak until the required depth of tint is obtained. The tint darkens somewhat on drying. The author notes that mixtures of the two dyes last named above give a fiery-red tone suitable for firelight effects.

Reducing Bromide Photographic Prints.

Lambert (*Photo. Scraps*) suggests the use of potassium alum and potassium permanganate as reducing agents for prints on bromide paper. He uses a saturated solution of alum given a pale-pink tint with solution of potassium permanganate. The prints are soaked in water for five minutes before immersion in the reducing bath; and they are left in the latter for about ten minutes. Any stain is removed by a very weak solution of oxalic acid or potassium metasulphite.

Disguised Castor Oil.

Oppler gives castor oil in an electuary made as follows:

Finely powdered roasted coffee... 10 grammes.
Powdered sugar..... 20 grammes.
Castor oil..... 20 grammes.

The following formula for aromatized castor oil is credited to the *Medical Fortnightly*:

Saccharin 15 grains.
Sodium bicarbonate..... 15 grains.
Chloroform 5 drams.
Oil of pimenta..... $2\frac{1}{2}$ drams.
Oil of cassia..... $2\frac{1}{2}$ drams.
Oil of cloves..... $2\frac{1}{2}$ drams.
Castor oil..... 5 pints.

Dissolve the saccharin in the chloroform; add the sodium bicarbonate; then add the oils, which have been previously mixed, and shake vigorously.

Chilblain Collodion.

Euresol 1 dram.
Eucalyptol 1 dram.
Oil of turpentine..... 1 dram.
Collodion..... enough to make 10 drams.

This application should not be used if the skin is broken.

Correspondence.

Short, timely articles upon subjects of interest to pharmacists are solicited for this department. In order to be in time for publication in the issue of a given month, they should be in the editor's hands on the fifteenth day of the month previous. Anonymous communications will not be published; but if the author expresses a wish to have his name withheld, this wish will be scrupulously regarded and his letter considered confidential.

Country Drug Life not so Discouraging.

Hartford, Conn., July 27th, 1911.

To the Editor of THE DRUGGISTS CIRCULAR:

If you do not consider it an intrusion, I should like to offer a word of counsel to Mr. Samuel H. Fritz and others who may be getting discouraged.

They should not think that, because they know a whole lot about the drug business, the "Rubes" are going to believe it; it must be proven. The transported city drug clerk must stick and show the townspeople that he knows the drug business. Then, instead of sending their prescriptions out of town, they will come to him, and he will have a chance to see some drug business. His daily life, too, has a great deal of weight; he is watched more closely than in the city.

I had three years of country experience. The first year the patrons of the store were almost afraid to let me give them a dose of castor oil; and, when my employer took a two-weeks' vacation, the business fell off. But from that time on, the people began to have confidence in me. To-day, if any of those "Rubes" come to town, they always look me up.

Many of the "Rubes" can take the city-bred clerk out in the backlots and teach him more practical botany than he ever learned at college.

"Me for" the small country town if I get a chance. There is more real drug business and real appreciation of your skill there than anywhere else. Your drug business depends on yourself.

D. N. CALLENDER.

Dispensing by Physicians a Drawback to "Rural" Pharmacy.

Still at Schenectady, July 27th, 1911.

To the Editor of THE DRUGGISTS CIRCULAR:

For many reasons, the chief ones being that I wanted to be away from the intense heat of the city and to recuperate, I have remained in this vicinity. In my previous letter to the CIRCULAR [July number, page 371] I forgot to mention that the great majority of the doctors in this town are of the dispensing variety; and it is their influence and also much on the part of the rapidly and ever increasing new patent [?] medicine men that tend to make pharmacy what it should not be.

Of course we should have some commercialism about us; but why not a little more professionalism?

One day I conceived the idea that, if the public could be informed that the doctor who dispensed—unless he is a pharmacist as well as a physician—is dealing with an extremely serious issue of which he knew very little, quite some good would be accomplished. So I contributed a note on the subject to a local paper; and I intend to contribute more. I sincerely hope that my pharmaceutical friends will take up a part of the work against this great evil, the dispens-

ing by physicians. What do you think of this matter? I will admit that there are quite a few ways of overcoming this sad state of affairs; and in my opinion the newspaper is an excellent medium, especially when one writes the truth; for, after all, the pen is mightier than the sword. SAMUEL H. FRITZ.

[As we have frequently stated, it is our opinion that the physician empowered by the State to select the medicine indicated by his diagnosis of the patient's condition has every right to provide that medicine for the patient's use. The problem is after all a medical one that does not adapt itself to a pharmacological solution. But pharmacists have an opportunity to effect the enactment of legislation that will assure the record of the kind, quality and amount of each drug furnished to any patient by a dispensing physician. In this endeavor public opinion would well be enlisted and there is a promise of assistance from the leading medical organizations if the resolution by the American Medical Association appearing in our news pages this month is any indication of the trend of medical opinion.—Editor THE DRUGGISTS CIRCULAR.]

Druggists and the Sabbath.

New Jersey, July 20th, 1911.

To the Editor of THE DRUGGISTS CIRCULAR:

It is my Sunday "on," as I write. It is with contempt for myself and shame for my profession that these lines are penned. The day has been a beautiful Sunday—so cool and refreshing after the hot days preceding.

Strewn along the pathway of the hours that have come and gone so quickly to-day were countless opportunities for refreshment of body and mind and soul. I have gathered nothing; for I have been shut in all day. What a pity! The church bells rang out their welcome—but I could not seek that divine inspiration which would help to make me a better, nobler man. The woods called in their enticing way—but I must turn a deaf ear. My wife and children, in silence, pleaded that I come—but I could not. Must I lose my love of God?

Must I gradually grow deaf to the call to enjoy nature's beauties?

Must I become callous to the tender pleadings of wife and little ones?

Must I lose sentiment and delight in things that are holy and pure and beautiful?

Does the drug business mean that?

What a pity to be a vendor of post cards, candies, "patent" medicines, etc., etc., on Sunday! What a pity to accept a few shekels in place of a beautiful day spent either in communion with God, or in the woods breathing in the fragrance of the pine, or at home with wife and children!

I saw my father pass into an early grave. Our home hardly knew his presence. He was a stranger. He was always at the store. He came home after we had retired and left before we were up. He never tasted the joys of life that count. He never had time for a hobby. He became a mere machine.

There is no excuse for the drug store being open all day Sunday. We all know it. We know that our business does not have to be run seven days of the week instead of six, like other retail shops. We know that we are not open for business all day just because we love humanity. We are after the dollars.

Is it not a shame and really a disgrace to pharmacy to make it a party to the commercialization of Sunday? The pharmacist, as a professional man, ought to stand for the highest and best in the community and it ought to be a point of honor with him to set the example by rigid compliance with all laws both civic and moral. The fact that the people clamor for soda, cigars and candy from the drug store, of course offers no justification for the pharmacist to bend to their pleasure, even though the financial reward is very tempting. That financial reward fails to tempt countless thousands of merchants in other lines of business is well evidenced by their almost universal custom of closing their shops on Sunday. It is a curious fact that of all professional or business men, the pharmacist makes the least effort to shorten his working day, and in but comparatively few instances makes his Sunday business in no way different from his daily routine.

Countless centuries of practice have taught the value and wisdom of the seventh day rest. A man need not be religious to appreciate that fact. Greater men than I, by far, have prophesied the ultimate value to pharmacy of the adoption of the seventh day rest. It seems incredible that it has not been adopted long ago. It is not Utopian. It is not the scheme of a fanatic; it is the goal longed for by thousands of thoughtful men.

I have not meant to criticise men, but to condemn a system; a system wrong in principle, pernicious in its effects and not justified in any form. The great mass of men who keep open Sunday are simply victims of the system. They are eager to be unbound; but ask in unison, "How are you going to do it?" That is the problem. It is up to the men of thought and influence to solve it. It will be solved.

SUNDAY REST.

[This is an old subject which has been threshed over time and time again, but it is an important one and our present correspondent has set forth his views on it in a unique and rather striking manner. We should hail with delight the advent of the time when pharmacists can make their livings like other men in six days in the week and eight to ten hours in the day. —Editor THE DRUGGISTS CIRCULAR.]

Floor Polishes.

FOR DARK-COLORED WOODS.

Stearin	100 parts.
Yellow wax.....	25 parts.
Potassium hydroxide.....	60 parts.
Yellow soap.....	10 parts.
Water	60 parts.

Dissolve the potassium hydroxide in one-half the water; heat the stearin with this lye until saponification is complete, and add the wax. Dissolve the soap in the rest of the water; mix the two solutions.

FOR LIGHT-COLORED WOODS.

White wax.....	75 parts.
Bleached shellac.....	75 parts.
Pale rosin.....	6 parts.
Oil of turpentine.....	100 parts.
Alcohol	400 parts.

Melt the wax, shellac, and rosin together; remove from the source of heat and add the oil and the spirit previously warmed.

Views of Professors and Practitioners on Graduation and Licensure.

Last February the Pennsylvania Board of Pharmacy examined a class of fifty-six candidates for licensure as pharmacists, all graduates of "recognized" colleges of pharmacy. Only thirteen of them passed. The same month only fifteen out of a class of perhaps some forty-odd graduates of colleges of pharmacy were able to secure licenses as pharmacists from the New York board. In commenting on these facts, the CIRCULAR said (May, page 239): "There is something wrong somewhere, and we pharmacists ourselves should find out what the trouble is and remedy it without waiting for some 'yeller' or 'muck-raker' in the lay press to lampoon, cartoon, excoriate and humiliate us for our shams, shortcomings or inconsistencies." As a result of this comment there appeared in the CIRCULAR for June, page 314, a letter from Louis Emanuel, president of the Pennsylvania Board of Pharmacy, and in the July issue, page 360, is another communication from Mr. Emanuel, accompanied by the set of questions used by his board at its February examination, and the answers to the same given by three candidates, respectively, graduates of three of the leading colleges of pharmacy in that State, who had failed.

Last month, on page 425, were published letters on this subject from Profs. Joseph P. Remington, Oscar Oldberg and E. F. Ladd, and editorial comment on the subject was made in July and August. Several other letters from prominent pharmaceutical educators were received too late for publication in the August issue, and these are herewith given. The first is from an experienced teacher who has consecrated his life to the task of bettering educational conditions in pharmacy. While he deprecates many things in connection with the present agitation, he agrees in the main with the view taken by the CIRCULAR as to the necessity for improvement of certain conditions pointed out. His letter follows:

Should Be Ashamed of Our Small Accomplishment in Pharmaceutical Education.

Madison, Wis., July 21st, 1911.

To the Editor of THE DRUGGISTS CIRCULAR:

I trust that some good may come from this exposé by the "muckraker from Muckrakersville," as the author* of "College Graduates before the Board" styles himself. But why is the title so sweeping? Why not "The Lamentable Story of Three College Graduates before the Pennsylvania Board of Pharmacy"?

We have had muckraking in politics, in municipal administrations and elsewhere. Now we are to be treated to a dose of it in pharmaceutical education. Possibly I am nothing if not critical, but I draw the line at muckraking or yellow journalism. I know something as to the falsehoods concerning the insinuations about the "manufacturer who mixes spoiled tomatoes, sodium benzoate, anilin dye and a few other things and labels the product 'Pure Tomato Catsup'" that have so readily found their way into "reputable" magazines. I fear that some of your inferences concerning the college graduate are somewhat on a par with those drawn from the use of benzoic acid.

There is a perfectly legitimate use of benzoic acid, and there is a use made of benzoic acid that we condemn.

*Louis Emanuel, president of the Pennsylvania Board of Pharmacy.

†It was really a story of forty-three college graduates who failed, out of fifty-six who took the examination—see the CIRCULAR for June, page 324.—Editor THE DRUGGISTS CIRCULAR.

There are good college graduates, there are indifferent ones, and even poor ones, and always will be. The pharmaceutical graduate is no exception to this rule. The secret and illegitimate use of benzoic acid we condemn, but this is no reason for railing at its proper use or denouncing as scoundrels those who believe in its legitimate and honest use. The poor pharmaceutical graduate should not be passed by the State boards of pharmacy, but again this is no reason for denouncing the pharmaceutical graduates as a class.

God only seems to have known all these years how poor an excuse our pharmaceutical curricula have been, but they are pretty much what the druggists as a whole, and those druggists in particular, who now for more than a quarter of a century have been examining candidates, have made them. More than any other group of men, our members of State boards of pharmacy are responsible for cramming schools and for the lowering of standards on the part of schools that have striven to rise above the plane of those institutions who have made it their mission to "prepare" for State board examinations. There are notable exceptions among these board members, but just enough to prove the rule.

When we, who have been trying to educate the pharmaceutical apprentice sent us by the druggist, complained that he did not even possess the elementary training of a grammar school, those colleges which are controlled by druggists objected to the enforcement of a rule requiring one year of high school. Likewise did the druggists at large who feared that their supply of cheap apprentices might be cut off. In order properly to educate pharmacists we need not only one year of high school, we need graduation from high school, we need more than that.

You state editorially that graduates have failed to answer questions "which any intelligent boy who has been working as a messenger or porter in a drug store for twelve months ought to be able to dispose of as a matter of course by putting to use his mother wit and the information he has absorbed by contact with drugs and druggists." If the average druggist of this country is so poor a business man that the N. W. D. A. feels constrained to appeal to the colleges of pharmacy to teach young men, who have served an apprenticeship of several years, how to write simple forms of business papers, how much arithmetic, not to mention chemistry and pharmacy, may such an apprentice be expected to absorb "by contact with" such a preceptor? If he does not "absorb" more from his teacher at college, is it not often true that he has no use for what his college professor tries to teach him for the very reason that his preceptor has told him that such "theoretical stuff" is all nonsense; or because he was given to understand that he could pass the board without it? It is in this indirect manner that the druggists at large have aided in making the college what it is.

Just a word as to the examination questions printed with their answers in your July issue. The truth of the adage that it is easier to criticize than to do better, we who have been trying to elevate pharmaceutical education have experienced in ourselves again and again. Charity therefore demands that we be slow in criticising the State board of pharmacy. But just as the average college professor would make a poor druggist behind the counter, so the average member of the board of pharmacy is of necessity a poor examiner. It should possibly be explained that it is to the credit of the average board member that the boards have not done worse. Yet when one reads the questions of the examinations submitted, one is involuntarily reminded of the German adage, "Es wird mir bei alledem so dumm als ging mir ein Muehlrad in Kopf herum." As to the "practical" part of the examination, accident would have it that a year ago I visited one of the laboratories in which one of these "practical" examinations of the board in question had been conducted a few days previously. The entire "system" was explained to me by a well qualified person. If before that time I had often questioned the wisdom of judging by examination, I was on that day sorely inclined to condemn unqualifiedly the whole miserable system.

As a critic of our own system, or rather lack of system, of pharmaceutical education, I have many a time pointed out the shortcomings of our colleges and schools. Fortunately, I have been so situated that my salary was not measured, at least not directly, by the number of students I had. Avoiding educational suicide, I have tried to raise the standard of the course over which I preside just as rapidly as possible. In your editorial you point out, and

rightly, that the graduates who failed to pass the examination lacked in capacity to think. Yet the teacher who endeavors to cause his students to think rather than to commit to memory a lot of heterogeneous information, is severely criticised by druggists, and above all by those druggists who were or are members of the boards of pharmacy. So great has been the opposition to raising the standard of right thinking, that even a university ex-president once expressed his "admiration" for the optimism I revealed in the attempt to make "students out of those fellows," meaning thereby the insufficiently prepared pharmacy students. A former member of the board of regents criticised my policy because I demanded "too much." As a result our course did not bring enough students to the university and thus swell the total numbers of the institution. Hence my administration was regarded as a partial failure and my salary was kept correspondingly low. Yet I have refused opportunity after opportunity to increase my income, and have been grateful to an administration that permitted me to continue the mission that I have selected for my life work. If members of the boards of pharmacy have been equally sincere, I should like to be informed.

I do not mention these personal matters because I want to place myself above just criticism as a college teacher. I think I have learned to welcome criticism honestly given. Neither do I expect that the best efforts on my part, or any further sacrifices which I may feel called upon to make, will make every pharmaceutical graduate of my institution a successful pharmacist. I do not even expect all of them to pass the State board examinations.

What we need most of all in American pharmacy is an appreciation of the worth of a genuine pharmaceutical education—no 1200 hours of instruction specified in detail or similar preparations to State board examinations—but as thorough, as broad, as liberal an education as can be planned for those who intend to serve the public in sickness and distress while incidentally making an honest living by putting up prescriptions and giving scrupulous attention to similar duties. We have had altogether too much of the dragging down tendency within the college as well as without. If instead of glorifying our modest achievements we learn to feel heartily ashamed of the little we have really accomplished in professional education, possibly some good may come even from this present "muckraking." Taking this optimistic view of the situation, I remain, [etc.]

EDWARD KREMERS.

[Director, Department of Pharmacy,
University of Wisconsin.]

The next letter is from a former dean of a college of pharmacy who has been lured away from teaching and is now chemist for a manufacturing house. It is of interest, although much of it has little if any direct bearing on the main point at issue, namely, the failure of graduates of "recognized" colleges of pharmacy to pass board examinations. It reads:

Why Many College Graduates Fail to Pass State Board Examinations.

Kalamazoo, Mich., July 24th, 1911.

To the Editor of THE DRUGGISTS CIRCULAR:

The reputable colleges of pharmacy of this country are endeavoring to perform their duty toward the students in attendance. The larger percentage of graduates pass State board examinations and become successful pharmacists. Some fall by the wayside, victims of unfortunate circumstances.

The American Conference of Pharmaceutical Faculties and the national syllabus committee are pruning and squaring up the college courses. The college courses throughout the length and breadth of the land are being shaped to an ideal. It is a process which can not be commended too highly. Its aim is well chosen and the time is not far distant when its object shall be realized in full. These forces plan not only to outline the college course itself, but to set a standard for preliminary education. Many students enter colleges from poor high schools, or with only one year of high school training, and are thus handicapped for life. It is impossible for them to learn as readily in college and often equally difficult for them to retain the knowledge gained.

Many non-college graduates who pass State board examinations, and especially those who have been patrons of six-weeks' quiz courses, study nothing except answers

to State board questions. They fill their minds with a fund of temporary information, sufficient only for the occasion, and as fleeting as time itself. Although such applicants may pass the examination, they fall flat when placed behind prescription counters of the better class of drug stores. Several cases of this kind have come under my immediate observation.

College students often fail to realize the importance of the work given them to do. They learn the lessons for the day only, and fail to retain them many days after an examination in school is over. Other college students constantly review their studies in order to keep the important points concerning the work fresh in mind. Those who *determine* to secure an education when they enter college and continue to nourish that determination until graduation, always win. The other fellow loses. It is simply a matter to be settled by the individual. None are so hard to teach as those who will not learn.

CHARLES H. STOCKING.

[Formerly Dean of the Kansas City College of Pharmacy.]

New Jersey, being flanked on one side by New York and on the other by Pennsylvania, both of which States require college graduation as a prerequisite to board examination, has a deep interest in this question, and has on foot a strong movement to secure a "prerequisite law." These facts lend additional interest to the next letter, which unquestionably points a way out of the trouble, even though a way which all are not prepared to travel just now:

Better Preparatory Schooling and Longer College Courses Needed.

Jersey City, N. J., August 2d, 1911.

To the Editor of THE DRUGGISTS CIRCULAR:

There are two reasons why such a large percentage fail in their board of pharmacy examination. In the first place, the average student who attends a college of pharmacy is not in possession of a good education, as he started in a pharmacy as an errand-boy and window and bottle washer. After a time this boy picked up some knowledge of pharmacy about the store and laboratory, sufficient to encourage and render him enthusiastic about attending lectures at a college of pharmacy.

Now, here we have a young man who hardly comprehends what the instructor is talking about; he constantly fails to grasp the essentials of any subject; he cannot properly arrange his lecture notes or thoroughly digest them for the quizzes or even future work; his experience in "how to study" places him at the end of a session in the midst of a "jumble," and he is utterly unable to sort out that which is of intrinsic value, ultimately to make of him the really scientific pharmacist. He soon realizes this and in order to make the best of a bad job resorts to cramming methods and this is usually accomplished by the "quiz compend." He lays aside the text-books because he really can not understand them. His one desire is to accrue just enough to "get through," as they say, and of course many do get through the college in this manner and become "half-baked" pharmacists and remain so for the rest of their lives, all because their ground work was poor.

We certainly want a better educated class of boys as apprentices, and we will then succeed in producing more able and brilliant students for the lecture halls and laboratories.

Pharmacists should therefore apprentice only the high school lad or one who has the something equivalent, and let the other fellow severely alone. If pharmacy is to become an advanced, dignified and honorable profession, then, I say, let us elevate it from the educational standpoint, beginning with the apprentice; if this is done, I am certain there will be no more "kicks coming" about the board of pharmacy failures.

The second reason some fail at the board examination, is that most of our schools of pharmacy have a two-year course. Now I contend that this is too short a time for any instructor, if he desires to be thorough in his work, be it chemistry, pharmacy or materia medica. The field of each is vast, getting more so each year, and therefore I believe that the time has come when we should have a four-year graded course in every college of pharmacy, in-

stead of a two- or three-year course. This would undoubtedly enable competent teachers to go over the ground slower and better and make difficult subjects plainer for the pharmaceutical student. It would also afford more time for the quizzes and the laboratory work.

It seems to me that more attention should be given to the student's time and work in the laboratory. Instruction should be given to section classes consisting of twenty or twenty-five at a time, not a hundred or more, as is usually the case, as there is too much confusion and racket in an arrangement of that kind. Smaller classes would enable the instructor better to watch the progress of each student, and to give him more personal attention.

There should also be more frequent test examinations, especially so in the laboratory work, at least one such examination every two months; and unless a student has a good average at the end of a session, he should not be allowed to come up for the final examination. All students, before taking their finals, should be proficient in the chemical, pharmaceutical and pharmacognosy work. I am sure all this could readily be accomplished in almost every case and with excellent results, providing it was done during the four-year course; but, we could hardly accomplish it with a two-year course.

Regarding our boards of pharmacy, great care should be taken by the State pharmaceutical associations in the selection of candidates for board examiners: none but those who are experts should undertake to examine an applicant for a license. While many members of our boards throughout the country have been and still are very capable gentlemen, yet there have been some whose knowledge of pharmaceutical science was not very profound, and they would have never been examiners had it not been for the politics they played. None but an expert should be appointed for an examiner of any board of pharmacy, one who knows his subject from beginning to end, and does not have to get his questions out of text-books and then ascertain from the same source if they have been answered correctly.

PHILEMON E. HOMMELL, M. D.

[Dean of the New Jersey College of Pharmacy, Newark.]

Board examinations are a necessity, believes a dean in the East, to keep out of the ranks of pharmacists such "grafters," "quiz compend fiends" and "memory sharks" as squeeze through college on the installment plan. He states the case clearly and succinctly, and presents his conclusions in a clear-cut manner. Hear him:

Are Not Colleges to Blame for Graduating Ignorant Men?

Orono, Me., August 4th, 1911.

To the Editor of THE DRUGGISTS CIRCULAR:

I have read with interest in your July issue the examination questions of the Pennsylvania Board of Pharmacy, and the answers thereto made by three unsuccessful candidates.

For the clarification of the issue thereby presented, it is fortunate that these unsuccessful candidates were graduates of high-class pharmacy colleges: fortunate, for otherwise the almost certain average judgment on such failure would be that it demonstrated the insufficiency of the pharmaceutical training of the candidates. Under present circumstances some other explanation must be the true one; for no one in his senses would believe that an institution and training that have given us such men as Dr. F. E. Stewart, George M. Beringer, Prof. H. V. Army, and the beloved and lamented Hallberg, are at the same time to be held responsible for the vaporings of Candidate "Smith."

"But," it will be asked, "are not the colleges to blame for graduating such men as these?"

Here some things, not commonly understood, should be considered. These men in applying for admission to college necessarily presented satisfactory credentials, or they would have been rejected. Possessing these credentials they could not be excluded, in absence of impeaching evidence. They therefore entered, and having entered they became in a sense merged in the student mass, only attracting individual attention during recitations, laboratory reports, etc. As these recitations and other tests are scattered through the entire length of the two or more

years of their course, it not seldom happens that a poor student (one who never does honest and thorough work) nevertheless, by knack of fair memory and "plugging" for an important recitation or examination, may really never fall below passing grade. One after another the subjects of the curriculum may be passed, *pro re nata*, leaving at the end of his course no alternative to the college but to graduate the candidate.

But in facing the "State board" his problem is different. He has no "line on" the probable questions to be asked; and he must pass in all subjects, and at this one time, or not at all. Instead of, as at college, passing on the installment plan—and taking two or more years to do it—the test is compressed into one to three days at most. For the "quiz compend fiend" or mere "memory shark" this is a real ordeal; and the joints in his armor are visibly gaping at the end of it.

A properly designed machine for turning out carriage spokes is uniformly a success. Why? Because the raw material furnished is uniform and select in kind and quality. But suppose the material furnished be part bass-wood, part punk, and part hickory, then what of the finished product? Would not the shallow thinker vote the machine a failure? Such is the problem of the college. Like the Church, it may be likened to "a net which draws forth fish good and bad." Also like the Church its high ideals and ministrations are scorned by those who filled with the pure mammonism of the age "care for none of these things." You can rope down a man and by hypodermic injection, or otherwise, force into his system a drug which will have its full and certain effect, no matter what the opposition of the patient. But you can't do that in college. Therefore, until we better know how to "minister to a mind diseased," or to a debauched or obstinate will, we shall always have with us "Smith," "Brown" and "Jones."

Does anyone believe that this limping trio have any real or higher interest in pharmacy than the "graft" they hope to get out of it? Where, then, is their failure? Simply that they have no true inspiration or love of their calling! Failing this, they fail in their preparation, always! The lover counts not the cost nor the hours lavished on his adored one. As a foundation for the home, for such love there is no substitute; and in like manner neither is there in the preparation for pharmacy any "near," "almost," "oid" or other semblance or substitute for an all-consuming, all-else-excluding love for the calling.

Incidentally, the published report from Pennsylvania emphasizes the need for the pharmacy board, as a "court of last resort"; and the unwisdom of registering graduates without the additional test.

W. F. JACKMAN.

[Dean, Department of Pharmacy,
University of Maine.]

Co-operation of Examining Boards and Educators Would Help.

Taking what seems to be quite a different view from that of Prof. Jackman, a leading Western educator appears to be of the opinion that boards of pharmacy should work with the colleges in their respective States to give the students and prospective candidates an idea of the questions to be asked. His letter in full follows:

New York, July 24th, 1911.

To the Editor of THE DRUGGISTS CIRCULAR:

I have read with interest and profit your editorial on "Reform Needed in Our Pharmacy Schools," and Mr. Emanuel's comments. It is impossible to do justice to these timely articles in a few words and to do this while I am wending my way to Boston, where I shall read a paper before the American Pharmaceutical Association bearing upon the subject.

To give you some idea of my views, I would say: When the School of Pharmacy of Kansas was created it was my plan to have the "State board" give mid-winter examinations to the students of the school, but this was never consummated. Instead, and as a sort of compromise between bodies of varying ideas, representatives of the State board, chosen by the State association and the regents of the university, conducted unofficial examinations of college students. This plan, it was felt, would secure inti-

mate relation and co-operation between the two institutions. Unfortunately, after a few years, it was abandoned.

I believe we should strive to bring together boards of pharmacy and teaching institutions of pharmacy. The demands of each should be well considered. The method and standard of pharmaceutical education should be a compromise, so to speak, between these important bodies.

L. E. SAYRE.

[Dean, Department of Pharmacy,
University of Kansas.]

The Supervision of the Board Should Accompany the Student.

Dr. Philip Asher, dean of the New Orleans College of Pharmacy, is of the opinion that it might be well for the board of pharmacy to have control over the young man who enters a drug store for the purpose of learning the business, from the time of his entry until the time of his licensure as a full-fledged pharmacist, even passing upon his fitness to enter college, regardless of any certificate issued by an educational institution.

The results of the Pennsylvania examination, he continues, reveal conditions which are indeed deplorable. The questions and practical work were adapted to the understanding of students who had received adequate training in colleges of pharmacy.

During his fifteen years' experience as a teacher Dr. Asher has seen many young men who under ordinary conditions displayed coolness, intelligence and aptness, but when on examination showed just the opposite qualities. Some of the brightest students, he has found, "go all to pieces" when subjected to the ordeal of an examination. He has observed the same thing in business. He concludes, however, that something more than herein indicated was the matter with "Smith," "Jones" and "Brown," the three Pennsylvania candidates whose answers to board questions appear in the CIRCULAR for July, page 360—maybe they waited too long after graduation before attempting the board examination. Many of the questions asked by the board were based upon first-year work at college and perhaps the boys forgot their first year's education while getting their second year's.

In conclusion Dr. Asher suggests co-operation of boards and schools to bring about better conditions and says:

But, be it as it may, there is something wrong, and it would be well for all parties concerned thoroughly to sift this matter. While upon its face it does appear astounding, a thorough investigation may reveal mitigating circumstances. We are more or less prone to hold up our hands in horror and make a big fuss over things. In the interest of higher pharmaceutical education every phase of this matter should be examined.

Common-Sense Educational and Examining Methods Needed.

One who modestly claims to be only a plain country druggist, although from his letter-head it is gathered that he is a "Ph. B., Phar. D.," and a chemist, brings into the discussion some ideas not acquired while acting in the capacity of either a teacher or a board examiner. He writes:

Saint Matthews, S. C., August 6th, 1911.

To the Editor of THE DRUGGISTS CIRCULAR:

I have been reading with great pleasure the articles by the different writers concerning the college graduates and the boards of examiners.

Although I wish to say something on the subject I feel very much as did a young magistrate who was hearing his first case. This young magistrate was sadly deficient in

legal lore, and when the attorney for the plaintiff had concluded his argument the magistrate said:

"I decide this case in favor of the plaintiff."

"But," objected the counsel for the defendant, "you have not heard my client's side at all."

"It makes no difference," replied the magistrate, "but if you wish to say anything you may do so."

When the attorney for the defendant had concluded his argument the magistrate exclaimed:

"Wonderful! Upon my soul! The defendant wins now!"

So, I think that there must be something right and something wrong with both the boards and the colleges. Just what is wrong with each it is difficult to say. I have heard the colleges accused of being too "scientific" and "professional" in their teachings, and the boards of being too "practical" in their examinations. I have often wondered if this was not the truth, only reversed—if the faults of which the one is accused are really not the faults of the other, and vice versa. In other words, it may be that the professors in our colleges, not having been actively engaged in the commercial side of pharmacy perhaps for some years, are apt to overshoot the mark and make their teaching too practical. The boards, upon the other hand, occasionally seem to forget what is actually required of a pharmacist in everyday practice.

I remember that one of the questions in chemistry asked me by a member of the board was: "What would be the color of the blood in poisoning by carbon dioxide?" I have spent more years in a drug store than I care to tell now, but I have never found any occasion where it was necessary for me to know the color of the blood in a case of carbon dioxide poisoning, except the occasion just mentioned.

As a very humble and ignorant country pharmacist I believe that it would be a good plan for our professors to spend their vacations working in a drug store, and for our members of boards of examiners to spend part of their time at college.

Another good plan would be for the examiners to go over their questions carefully and ask themselves if they could answer the questions which they ask without the aid of a book of reference, and if so, would the questions be of value in testing the fitness of the candidates for the practice of pharmacy.

In short, let the examiners and the professors of each State get together and decide what is actually required of a pharmacist. Let the professors then teach at least this, and the examiners examine the graduates on what was required of them by the professors in their colleges.

B. O. BERRY.

Drug Store Practice and Pharmaceutical Education Are Incompatible.

Mr. Berry's views are very similar to those of another non-teaching reader whose daily life puts him in a position to judge what qualifications make for success in the real everyday drug world. Out of the busiest mart in drugdom he writes:

Downtown Manhattan, August 17th, 1911.

To the Editor of THE DRUGGISTS CIRCULAR:

Your article on "College Graduates before the Board" [July issue, page 360] and Prof. Remington's letter in defense of the colleges [August issue, page 425] deal with one of the most vital and irksome problems connected with the education of the American pharmacist. And I should say that every pharmacist who would like to see his profession in a flourishing condition, ought to help in the solving of this problem by all possible means.

Who is to be blamed: the colleges or the State boards? Faults there are on both sides; the greatest fault is on the part of the pharmaceutical associations.

Why do the students fail? But, really, considering the way in which practical pharmacy at large is now conducted, we should wonder that such a considerable percentage of graduates are making good. These young men get acquainted with the scientific and professional part of pharmacy at college only and are before and after school and during their time out of school, for the most part selling stamps, cigars, fancy goods, perfumery, bric-a-brac of every description. Should we wonder that they do not keep in their heads the nonsense (it is nonsense

as long as they are unable to apply it in life) taught at college?

The State board questions should be 90 per cent. matter concerning stamps and department-store goods, and about 10 per cent. concerned with professional and scientific subjects. Then the boards would hardly have anybody of the present pharmacists not up to the standard.

There is only one remedy applicable to the deplorable situation: Raise the standard of educational requirements for entrance to the pharmaceutical profession. A full high-school education should be possessed by the would-be pharmacist before he enters the employ of a pharmacist; and he should have two years' practical experience before entering college. The college term should be a full three-year course, giving the student not only an education as a pharmacist proper, but also as a public analyst and hygienist, so enabling him to fill his right and only place in the community, that of a health officer, on an equal footing with his brother the physician to the best advantage of both of them and their patrons. And one year of practical experience after graduation should be required before the graduate was permitted to manage a pharmacy.

The State boards should be retained, not for the purpose of torturing again young men and women with examinations that prove nothing but to watch the colleges, see to it that they give to their students the proper training and not pass them with quasi-examinations. The boards should participate in the outline of subjects to be taught at the colleges and be represented at the college examinations.

This reform enacted, there will be the possibility of lessening the number of unworthy persons coming into the profession; and the old members will be made more professional with an outlook of earning a living without resorting to the use of department-store methods.

The results that will follow the consummation of this reform cannot be expected in a year or two—but in about ten or fifteen years the entire aspect of the profession, its standing would be changed; it would be esteemed. This is not a dream; the plan I have outlined, to a greater or less extent, obtains in France, where, so far as privileges are concerned, the pharmacist is in the same condition as his brother-professional in the United States.

PETER AMSTERDAM,

Bubbling Blue for Laundering.

Chinese blue.....	50 grammes.
Sodium bicarbonate.....	105 grammes.
Tartaric acid.....	30 grammes.
Powdered talc.....	15 grammes.
Stearin	1 gramme.
Alcohol	80 c.c. (mils).

Reduce all the solids to a fine state of division; triturate them together and work in the spirit. Pass the mass through a granulating sieve; spray the granules with a thin liquid petrolatum, and let them dry.

Brass Polish.

Liquid petrolatum.....	8 ounces.
Butter of antimony.....	¼ ounce.
Alcohol	4 ounces.
Diluted acetic acid.....	8 ounces.
Jewelers' rouge.....	½ ounce.

Mix the butter of antimony with the oil and shake well for several minutes; let stand for several hours, and add the alcohol, shaking thoroughly. Shake the rouge with the acid, and mix the two liquids.

Stick Salve, or Roll Turpentine.

Yellow wax.....	1 pound.
Resin	4 pounds.
Linseed oil.....	4 ounces.
Oil of turpentine.....	4 ounces.
Make into sticks weighing about ½ ounce each.	

American Pharmaceutical Association.

Fifty-ninth Annual Meeting, at Boston.

Of course everybody expected the Boston meeting of the American Pharmaceutical Association would be a success, and it was. Boston druggists, Boston weather, Boston hotels, and everything in and around "the Hub" seemed to conspire to make the fifty-ninth annual meeting full of pleasure, full of business, full of all the good things which fall to the lot of those who attend these annual gatherings of America's representative pharmacists. The sessions were held in the Hotel Vendome, where plenty of large and small meeting rooms were provided.

Board members from far and near were present to attend the meetings of their own organization, and did much to lend interest and variety to the proceedings. The attendance was good, although the druggists from the New England States did not appear as numerous as might have been expected.

In the matter of entertainment, Boston always sets a high standard, and those who were within her hospitable borders on the occasion now under discussion can testify not only to the large amount and pleasing variety of the features of the meeting provided for their pleasure, but for the cordial manner in which they were presented. The association probably will not again wait thirty-six years before holding another meeting in the New England metropolis.

NEW OFFICERS.

Some of the general officers are elected by the members by mail ballots prior to the meeting, and some are elected by the council. Section officers are chosen by the respective sections. The officers for the ensuing year are as follows:

Honorary president, Henry Biroth, of Chicago.

President, John G. Godding, of Boston; vice-presidents, Wilhelm Bodeman, of Chicago; Charles M. Ford, of Denver; and Ernest Berger, of Tampa; secretary, James H. Beal, of Scio, Ohio; treasurer, H. M. Whelpley, of St. Louis; and reporter on the progress of pharmacy, C. Lewis Diehl, of Louisville.

For officers of the respective sections, the following were elected:

Commercial interests—Chairman, E. Berger, of Tampa; secretary, David Stolz, of Syracuse; associates, B. E. Pritchard, of Pittsburgh; Louis Berger, of New York; and F. H. Carter, of Indianapolis.

Scientific papers—Chairman, W. O. Richtman, of Satsuma Heights, Fla.; secretary, C. H. LaWall, of Philadelphia, these two to choose a third member as associate.

Pharmaceutical education and legislation—Chairman, J. C. Wallace, of New Castle, Pa.; secretary, W. J. Teeters, of Iowa City; associates, Philip Asher, of New Orleans; L. D. Havenhill, of Lawrence, Kan.; and H. D. Kniseley, of Checotah, Okla.

Practical pharmacy and dispensing—Chairman, P. H. Utech, of Meadville, Pa.; secretary, W. A. Hall, of Detroit; associate, J. L. Lascoff, of New York.

Historical pharmacy—Chairman, Otto Raubenheimer, of Brooklyn; secretary, C. A. Mayo, of New York; and historian, Edward Kremers, of Madison, Wis.

THE COUNCIL.

W. M. Searby having died, and the terms of the other two members of the council installed in 1908—S. A. D. Sheppard, of Boston; and H. P. Hynson, of Baltimore—having expired, the following three new members-elect of the council were inducted into office—E. G. Eberle, of Dallas; J. M. Good, of St. Louis; and George F. Payne, of Atlanta. The new officers of the council are, Chairman, E. G. Eberle; vice-chairman, J. M. Good; and secretary, J. W. England, of Philadelphia.

THE NEXT MEETING.

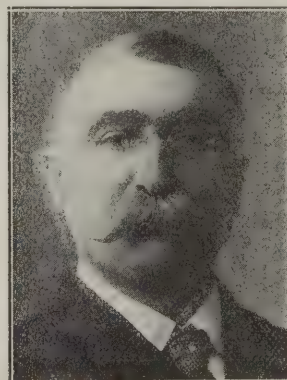
Not being able to agree upon a place at which to hold the meeting next year, the committee on time and place of meeting recommended that the association choose between Denver, Cedar Point, and Nashville. At an adjourned meeting held on the boat returning from Plymouth, Denver was chosen, the vote being, Denver, 65; Cedar Point, 22; Nashville, 8. E. L. Scholtz was appointed local secretary. The selection of the time was left to the council.

Nominees for officers for the term 1912-13 are given on page —.

FIRST GENERAL SESSION.

Monday Afternoon, August 14th.

When President Eugene G. Eberle, of Dallas, called the fifty-ninth annual meeting of the American Pharmaceutical Association to order in the large meeting room of the Hotel Vendome August 14th, at 3:15 p. m., there were on the platform with him not only Honorary President McIntyre, President-elect Godding, Vice-President Day, Secretary Caspari, Treasurer Whelpley, and Council Secretary England, but many of the former presidents of the association, including John F. Hancock, of Baltimore (1873-4), who, with the exception of Enno Saunder, of St. Louis (1871-2), is the ranking ex-president, and C. Lewis Diehl, of Louisville (1874-5) who follows Mr. Hancock in rank, and who, incidentally, presided at the last previous meeting of the association held at Boston. Other former pres-



J. G. GODDING.

The New President, who did much to help entertain the visitors.



E. G. EBERLE.

The Retiring President, now Chairman of the Council.

idents at the meeting this year were in the order of their seniority—John Uri Lloyd, of Cincinnati (1887-8); Joseph P. Remington, of Philadelphia (1892-3); Edgar L. Patch, of Boston (1893-4); James M. Good, of St. Louis (1895-6); Henry M. Whelpley, of St. Louis (1901-2); George F. Payne, of Atlanta (1902-3); Lewis C. Hopp, of Cleveland (1903-4); James H. Beal, of Scio, Ohio (1904-5); and Joseph L. Lemberger, of Lebanon, Pa. (1905-6).

The meeting was opened with prayer by Rev. Albert Rhys Williams, of East Boston, and addresses of welcome were made by Lieutenant-Governor Louis A. Frothingham, Acting Mayor Walter L. Collins (in the absence from Boston of Mayor Fitzgerald), President George S. Smith, of the Boston Chamber of Commerce, and C. H. Packard, local secretary. To these addresses responses were made by R. H. Walker, of Gonzales, Texas, and C. M. Ford, of Denver.

Vice-President W. B. Day, of Chicago, took the chair while President Eberle delivered the following address:

PRESIDENT'S ADDRESS.

An ambition exists in every man to excel in the particular field of endeavor he has chosen for his life's work and through which he seeks to gain his livelihood. Nearly everyone has a desire for the approbation and respect of those who have accomplished much in the same sphere of activity. The position with which you have honored me had an attraction for me, but judging my capabilities much less favorably than you have, no great hope for such preferment was aroused within me. While it may be said that in a particular section my labors in the cause of pharmacy have been more or less helpful, I know of no accomplishment which should have pointed me out for this mark of your favor. We are prone to judge ourselves more harshly than our friends do, and in truth care not to be accredited with greater deserts than we are relatively entitled to. No one should be seriously offended because of honest criticism being passed upon him from a source uncontaminated by ulterior or sinister motives. I speak frankly, realizing the importance of wise selection for the high offices of this organization. My year of office now coming to an end, I feel constrained to say that I have not had the time, if the ability had been mine, to do full justice to the position of president of the American Pharmaceutical Association. In other words, the work of the officers is influenced by their opportunities and environment, and we should select them carefully because of their fitness and qualification. No one could value more fully than I the honor you have conferred, and if the appreciation which your preferment has given me is a matter to be considered, then no mistake has been made; for no distinction has ever come to me which I prize more highly.

Associations are co-operative organizations, having for their

purposes certain advantages unobtainable, or at least not as easily attainable, by the individual, and give to each member a share of the accumulated benefits, whatever they may be. While it would perhaps be impossible to prevent it, were there any disposition to do so, those who, through selfishness or other motive, refrain from lending assistance, also share. With few exceptions, if any, large enterprises or great accomplishments which have distributive or general value are either directly or indirectly promoted through concerted action, and are not usually the result of individual endeavor. The labor, knowledge, investigations and discoveries of quite a few scientists have in a corresponding number of instances been striking examples of the possibilities for a student and worker who is competent and capable of applying to his use that which has been more or less in a state of development.

As with commercial enterprises so also with associations in most progressive eras, co-operation is not only essential, but in reality has been most active in inducing and inciting progressiveness. A period of this kind is characterized not only by utilization of all opportunities, deriving every advantage obtainable, but also by excessive wastefulness. As a result we have large co-operative enterprises, whereby many expenses are cut out and profits are the result of business volume. In the desire for securing all power and conserving all material—that is, converting it into merchandise—wastes are frequently overlooked, because they are cumulative. The farmer draws upon the soil without returning the essentials for further production, and succeeding years evidence the same weakness incurred through methods of business, wherein specialization is carried too far and the help becomes unfitted for diversified work. Serious defects occur in the manufactured article because portions of the crude material are utilized which should have been discarded, or, to make an article more attractive, processes are employed which in part destroy its value. Another view is embodied in the destruction of forests wherein thought is only given to immediate returns. Comparatively, the former may be considered in the light of a business being injured by combining with it incompatible adjuncts, the latter doing away with remunerative and essential departments, forgetting that a future day will find their return impossible, however sorely missed. The thought might be carried into our educational systems, wherein we endeavor to teach all in the same branches, perhaps giving a superficial polish, but many times to the neglect of thoroughness. The tendency is to hasten education, without insisting on practical application of the branches necessary in the pursuit of business or trade. I cite as an example the adaptation of mathematics, which to us is more familiar in chemical problems and calculations necessary for pharmaceutical operations. The great mass leave school at the age of fourteen, and before they find the need of their school studies have to a great extent forgotten them, or, if they remember them as theories, are unable to make practical application thereof. The German government supports continuation schools in which attendance is required for the boy until the age of eighteen, and where the education received in the regular schools is applied in problems relating to arts and trades. Ask the young men who come to pharmacy schools, even after more or less higher school training, to calculate relation or proportion in figures and they will quickly respond; but request an answer wherein the same calculation is required, only that it is applied in actual work, and a large proportion suffer with nervous indisposition. This is largely due to misdirected ambition, enforced with the permeating desire to accomplish much in a very brief period, forgetting that thorough understanding has a far greater value.

Ambition is a growing power, contributing largely to the achievements in every age. Without its influence there would be lethargy, no progress or advance. Every business that has been successful, every profession of real value to humanity, each trade that exhibits the marks of improvement and every contribution to art and science, has been promoted because of the ambitions of those engaged in the pursuit. Life is becoming more complex and the demands upon the individual correspondingly greater, because his needs are greater. The possibilities in every department of activity and investigation are also greater, consequently ambition becomes a tremendous power in the minds of an ever-increasing number.

Moral courage requires greater strength of character and self-sacrifice than physical bravery. In expressing fearlessly one's honest convictions, disregarding friend and foe, especially when there is nothing to be gained except the satisfaction of speaking and contending for a just cause, friendships are often sacrificed and the antagonism of malignant tongues incurred.

The drug business, viewing it generally, exhibits a complex problem for one association to cope with, in fact, almost an impossibility. The divisions are so at variance that they almost present incompatibility in association work. Again, the conditions prevailing in one section of the country vary from those of another, within States there is a wide difference, and even the stores of the same city will present quite different appearances and are conducted by men who entertain almost divergent views. An association must be representative of its membership—that is, its objects must include the aims of its constituents, the purposes of organization being that the individual member may profit from the experience and knowledge of others, and reciprocate. The idea of co-operation is further promoted by carrying into effect regulative and corrective measures, or providing means or methods therefor, and through both schemes also protecting and serving the public.

Experience has proven that there is necessity for the work promoted by both the American Pharmaceutical Association and the National Association of Retail Druggists; but the question arises whether, through joint effort as one body, the results would not be more advantageous to the constituents. Certainly there ought to be an inter-association between these and all co-related organizations, making it possible to work together in matters of joint interest for mutual benefit. While the objects that are uppermost in the one association, as now conducted, are of secondary importance in the other, an association should represent the combined interests of its entire membership. If, on the other hand, the missions of the two

associations are to remain distinct, then an endeavor ought to be made to define the precincts of each, and one should not encroach seriously upon the territory of the other. The time will probably come when attention to the mercantile side of the drug business and a demand for higher pharmaceutical education from those who pursue more closely the practice of pharmacy will bring about a still more distinct demarcation. Unquestionably, were it possible to bring about such a division, pharmacy would progress far more rapidly, and it is debatable whether it is not practical to make the division at this time without doing serious hurt to anyone. Experience of the older States, where the advantages of schools and regulative measures have obtained for a long time, evidences that under prevailing conditions we cannot hope for very rapid progress. Even the medical profession is debating the advisability of a two-degree system in medicine.

Many of the undesirable conditions in human affairs are the result of selfishness and thoughtlessness. We do not listen intently enough to the poet and philosopher; we think of to-day, and not of to-morrow, and do not apply the lessons of the past. Under the old labor system a man was offered a certain price for doing piece work, when it was found that he could do double the amount the price was cut, or he received relatively less per day. The new system increases the wages and reduces the hours of labor. Man resents inequality and injustice just as soon as he has the power or means of doing so. A system that does not consider both the investment and the labor needs adjustment. If it comes through force, or without due and careful consideration, the best results do not follow.

In the arts and trades this adjustment is brought about to some extent by classification or graduation according to the skill or knowledge required in the pursuit. This is also true in the drug business, where a wide variation in qualification, adaptation and selection exists, characterizing the respective establishments in accordance with the views and accomplishments of the one who conducts its affairs. It is an oversight to disregard the adaptability of those who enter the drug business, and it is disadvantageous to neglect the encouragement of those who strive to become qualified for pharmaceutical pursuit. The same causes which have induced unsatisfactory enforcement of labor rules have hindered and impeded promotion in pharmacy. The advancement of the votary has not been encouraged in the ratio of the call for higher requirements in order to practice pharmacy. The need for better qualification is generally admitted and that the status of the pharmacist should be higher; he should be in position to intelligently discuss scientific subjects with professional men and coerce their deference. This is an impossibility when actual pharmacy constitutes only a small portion of the daily duties, and the compensation is not as lucrative as that of the average mechanic. We are forced to admit that service and its pay have a relation and a bearing one on the other, that have much to do with its status and advancement.

Schools of pharmacy and also boards of pharmacy should come into closer touch with the public and more particularly with those engaged in the drug business. The people demand publicity and there is no need for going beyond the precincts of conservatism. The American Medical Association may be classed among the strongest of advertisers. The exposure of frauds, the evidencing of activity to correct all abuses and to purify the profession are most potent factors in this direction. The interest of the medical profession in matters that pertain to hygiene and public health generally, enlists the confidence, approbation and even enthusiasm of the people. There are similar opportunities for pharmacists, they should take a more direct interest in public affairs. Members of boards should instill the desire for progressiveness and advancement. Associations should espouse the cause they stand for and declare the purposes and need for their organizations. Schools should be of assistance in the promotion otherwise than in the education of the young pharmacists only. The druggists should be prevailed upon to make full use of the facilities of the schools, and while such features largely obtain, there are greater possibilities. The schools could well afford to make assays of the galenicals, prepare standardized solutions and in restricted instances some of the galenicals and other preparations when it is desired to perfect processes of manipulation or formula.

An association is composed of individuals and should represent their interests—a school of instruction, an advisory council. It should represent the best endeavors, the selected thoughts, the ripe experiences of all (deprived of the deficiencies, the superficial and valueless), combined and blended through discussion, careful and wise consideration, so that the association becomes most potent in advancing, directing and promoting the cause of its constituents.

In order to obtain the greatest good from association work there must be systematic endeavor, just as in a business. If system is lacking in any enterprise the results will more than likely bear witness of unconcerted activity; the work of one department may neutralize or make ineffective or valueless that of another. So for association work there should be well defined plans, even from year to year, until certain purposes decided upon are accomplished. In this particular there is much improvement desired in the usual programs of State associations, as the proceedings give evidence. Another serious fault, which possibly is included in the prior statement, is the passing of resolutions. Resolutions are important, but unless carried out have a tendency to weaken the cause of the association; wavering in the execution of a purpose which has been declared necessary and right, is as harmful to organizations as to individuals. A feature quite as apt to destroy interest is the delegation of too many duties to one person; more general participation in the work ought to obtain.

The American Medical Association realized the importance of a close attachment between State and local bodies as a means of sustaining the national organization, and also that the long recess intervening between the annual sessions was not conducive to its strength; a very wise conclusion, the correction of which has built up, with the aid of its official publication, a powerful organization, in position now to command attention in legislative halls and gain a respectful hearing from the public. The advantages are reciprocal; the co-

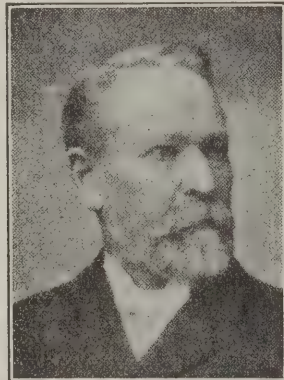
operative influence of State bodies gives support to the purposes of the national organization, and this influence is not ineffective locally and individually. As a result it has not been a very difficult matter to exact higher educational requirements of those who would prepare for the practice of medicine, and progressively, also, longer years of more thorough preparation and study before granting the required credentials.

The most valuable feature, however, is represented in the association scheme of membership in the national body through the linking of the local and State organizations. The difficulty in providing a similar system in connection with the American Pharmaceutical Association lies in the prevailing condition of the drug business. There is a lack of ambition and a deficiency of interest; the proprietor usually gives attention to the conduct of the store, while the pharmacist is accorded so little time which he may call his own that he desires to use this in some other way. The upholding of prices, the introduction of a line of remedies that bears a large profit or of methods for collecting accounts, seem to appeal much stronger than pharmaceutical matters. It, therefore, is very



WILHELM BODEMANN.

The new First Vice-President, who could not be present.



HENRY BIETH.

Honorary President. Was Local Secretary at the World's Fair meeting.

suggestive that the means which are more directly connected with remuneration from the business are uppermost, and that as association work must consider all departments it is unfortunate that in many drug stores pharmacy is not deemed of greatest value to the business.

The establishment of branches was a wise and important move, but is not far reaching enough; the numerical strength, except in the larger cities, is insufficient to maintain an active branch. Co-operation seems the only solution, either working conjointly with the branches of the National Association of Retail Druggists or with local medical associations. Through the latter connection pharmacists may wield an influence for much good, and also benefit themselves professionally. My desire, however, is for the strongest possible co-operation between this association, the National Association of Retail Druggists and the various State organizations, and, if deemed expedient, with other closely allied bodies. I do not favor amalgamation, believing that this weakens the activities, more particularly of the national associations. Ex-President Beal recently presented a carefully prepared address before the Missouri Pharmaceutical Association embodying valuable suggestions on this subject. I advise the appointment of a committee who shall take this matter under consideration, and confer with the National Association of Retail Druggists, looking forward to the establishment of a federation of pharmaceutical organizations by means of a delegate body, in which these associations are to be appropriately represented. A resolution passed at the last annual convention of the N. A. R. D. is broad and generous enough to warrant our anticipation of their co-operation. It reads:

"Resolved, That we foster and encourage most cordial and fraternal relations with all associations and organizations which have for their object the welfare of professional or commercial pharmacy."

The Journal of the American Pharmaceutical Association should render great service and induce a large accession of membership. Undoubtedly one of the chief reasons for withdrawals from the association is the fact that these members do not become thoroughly acquainted or actively enlisted as working members. True, the Bulletin has been a monthly visitor for several years, but it has been chiefly a medium for the branches and not for the membership at large. The opportunities for the new publication will be very much greater. Instead of bringing the full report of the proceedings to the members six months or more after the transactions, and once each year, the journal will communicate these in monthly installments until the report is concluded. The annual copy has always met with a generous and general welcome, but the first perusal devoted thereto was frequently the last, except for occasional reference. The contemplated publication will find its way to the members every month, and should establish a closer and continuing relation. As the official organ of American pharmacy, it should aid in bringing together the pharmacists of the country, and in their hands be a most efficient means for advancing pharmacy. There are many suggestions which would point out the great value and possibilities of the journal. Primarily it should be the means whereby the members are held together for a common purpose, becoming the monthly visitor, the influence of which prevents

estrangement, develops interest and keeps them fully informed relative to all activities of the association. As the organ of the association, representing its membership for the aims and purposes laid down in the constitution and directed by the by-laws, its policies are at once quite well defined. The publication should become the mouthpiece of the revision committees of the United States Pharmacopoeia and National Formulary. So the many advantages offered might be continued and be made to burden this address unnecessarily, as the subject has been very fully and ably presented heretofore and will receive your further consideration. I desire, however, to make a few general references and recommendations. The journal is a creation of the association, and enthusiasm over the prospective success should not permit us to place the value of it over that of the association, neither should the association strive to become a firm of publishers. Attention should, however, be given to securing subscribers to the journal, whether they affiliate with the association or not. The history of the membership of the American Medical Association shows that a very large percentage were at first only subscribers to their journal. The selection of the committee to manage the affairs of the journal is of far greater importance than the construction of plans and formulating details for its management. It is a matter of impossibility to provide for all contingencies that may arise; the journal, like every business venture, must have its inception and growth, and it is far better to select a committee qualified by business experience and imbued with the spirit of the association to conduct its affairs according to their wisdom and judgment, than to attempt with great detail to give direction and specifically define its business policies. I would further recommend a careful consideration of the practicability and advisability of having the general secretary become editor-in-chief, thereby making it possible to offer better compensation and secure the man best qualified for this most important position.

The sad event which deferred the publication of the journal was keenly felt by the committee on membership, for the journal was to be the strong talking point for the acquisition of members. This same occurrence, however, evidenced that the work of the individual is appreciated by the American Pharmaceutical Association, and accomplishment in pharmacy does not go entirely unrewarded. It is not in my province to speak of Professor Hallberg's usefulness as a pharmacist nor as a member of this body, for this privilege is delegated to others. We have also suffered loss by the departure of ex-President Eliel, who was devoted to pharmacy and to the association which gave him a profession. And now only a short time before this annual meeting death claimed Prof. Julian Baird, of the Massachusetts College of Pharmacy.

Commensurate legal regulations are essential for properly aiding and sustaining the advances made in pharmacy. Some years ago ex-President James H. Beal prepared both a model pharmacy and model narcotic law, which were adequate for the time and served most excellent purposes. The time has come when a similar work should again be undertaken, embodying the progress made since that time and covering conditions which have since developed. While no model pharmacy law can be prepared which would be generally acceptable as a whole, a closer conformity than at present exists is entirely practical. The same difficulties do not obtain relative to the construction of a narcotic law, as nearly all are agreed as to the principal points which should govern in the sale of narcotics.

I deem it also most opportune to consider liquor regulation in conjunction with this work. The prohibition of saloons has increased the sale of liquors for medicinal purposes in drug stores. While many are opposed to their sale, in any manner, by druggists, it must be recognized that others, just as conscientious and just as considerate of the interests of pharmacy, take a different view. This must be largely a matter for pharmacists of the several States to deal with, but the advice of this committee will doubtless be acceptable and the aid appreciated.

The present system of board examinations is more or less inadequate; too much stress is laid upon the value of answering questions, which frequently only proves the possession of a good memory. Until graduation becomes a general prerequisite, more attention ought to be given to practical examinations. A statement in detail should be had from persons competent to judge of the qualifications of the applicant for registration. Examination into the moral qualifications is almost as important as consideration of the professional attainments of those who desire to practice pharmacy.

Repeated violations of the anti-narcotic laws, and persistent non-observance of the regulations applying to the sale of spirituous liquors should be punishable by revocation of the license to practice pharmacy; and if the offender is unregistered should present an impediment, when he thereafter seeks to become registered.

A method of itinerant vending, or house-to-house distribution of drugs and medicines, more particularly of proprietary preparations, is extensively carried on in nearly all sections of the country. Such practice will prove a great harm to the people, who, not being aware of the danger, encourage these vendors by patronizing them. This offers an opportunity of selling drugs which in themselves may be harmful, or, if not, it unwisely fosters a medicine-taking habit. The vendors are as a class ignorant of the constituents and the effects of the products they sell, still they are willing to prescribe in order that they may sell.

I recommend the appointment of a committee, composed of one representative from each State, who will systematically take up these matters and present their conclusions at the next convention of this body, if possible, in the form of models for laws covering these subjects.

I would suggest to the committee for consideration the replacing of pharmacy boards by commissions with wider powers than usually given to the former. Also to consider the practicability of codifying the laws relating to the sale and dispensing of drugs, and bring them into one definite and comprehensive law, entirely consistent. The inadequate compensation of those who comprise the boards of pharmacy is not a wise or just provision, and in nearly every instance is prompted by a fear that the public would not sanction the en-

actment of a pharmacy law that would add to the State's expenses. The practicability of providing for commissions depends largely upon whether the people fully recognize the responsibilities of those who practice pharmacy, and realize that drug habituation and addiction, while an immediate expense, are progressive and the effects extend to future generations.

The suggestion is made that topics bearing hereon be presented for discussion at the meetings of the several State associations in the same manner as provided for by the commercial section. Further, that the members of the boards of pharmacy be more particularly urged to see that these important matters receive consideration before their respective associations.

The government is not only in position to fix the educational qualifications required of those in its employ, but should set an example of efficiency. The argument is applicable in practically all branches of service, to none more than those who look after the health of the people at large, and more directly those who have in their care the men of the army and navy. While direct credit should be given to those who have done valuable service within and without the American Pharmaceutical Association in promoting not only the standing, but the pay for services of those in the government's employ, they doubtless have been prompted by the call of duty, and to them approbation of the accomplishment is more gratifying. Qualification should always be of first consideration, but I contend that remuneration and recognition not only promote a higher standard, but are essential for maintaining such prerequisite. A higher standard, or advanced recognition given to those in the government employ, contributes a gauge according to which the public passes judgment on the votaries. I therefore commend the work which has been done by our association, and advise continuance of our unabated interest in whatever will advance the educational prerequisites and enhance the welfare and well-being of those participating in this service of whatsoever station requiring proficiency in pharmacy.

The administration and purposes of all associations resemble somewhat our form of government. The members govern themselves and promote and protect their interests through a chosen number from among themselves, who are charged with the performance of specific duties, and to whom certain authority and discretionary powers are delegated. When wise selection is made, or if from among the larger number votaries imbued with a progressive spirit and sincere devotion to their calling associate themselves, we may reasonably expect an economical administration or an organization which will truly represent whatever may be for the best interests of all engaged in a like occupation. An association, according to the selection of its membership and the scope of its purpose, speaks relatively for all likewise engaged. It is to be presumed that all associations worthy of organization have objects in view which extend beyond the selfish confines of their individual interests. Thus, while our association primarily may be constituted for the benefit of its membership, all engaged in the drug business in whatever capacity have a part; nor does the influence cease here, but extends to every home. The work of an individual is judged according to its quality, and also its worth to humanity. Associations are organized bodies of individuals engaged in a common cause, and, therefore, judgment is relatively passed on them. Much is expected of those to whom authority is given, and those who enter vocations wherein the integrity of the individual and adequate knowledge are necessary as a protection to the public assume grave and serious responsibilities, which they should energetically and conscientiously discharge to the best of their ability.

The American Pharmaceutical Association at its inception had in view the purposes to which we subscribe to-day. These founders realized, as we do, that to give the public our best service required not only that the pharmacist must be competent and compound accurately, but that he must have the proper material from which to make his preparations. Also, that their responsibility did not cease here; that it was their further duty to caution the inexperienced against unwise administration of medicine and protect them against imposition by the unscrupulous. In these suggestions we have largely the fundamental principles of the pure food and drugs act, and without great stretch of imagination we may say that the agitation for this measure was seriously set in motion by them. The pure food and drugs act is a protective and economical measure. A discussion of these phases is unnecessary, being so well recognized and quite generally accepted. We may be in thorough sympathy with its provisions, but unless we evidence our continuous and deep concern in its proper administration and lend our support and give encouragement to those who discharge their duties faithfully, without fear or favor, indifference is very apt to result. Apparently there is at present no immediate cause for such alarm, but we cannot afford as citizens or as pharmacists to permit a state of innocuous desuetude to obtain with respect to this measure, so far-reaching in its effects, and the underlying principles of which are so easily adaptable to many other activities.

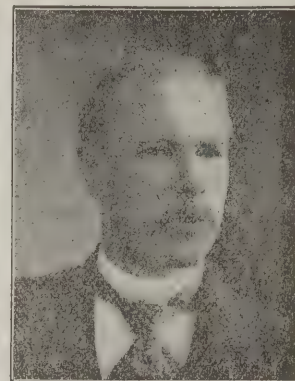
You are familiar with the recent supreme court decision which holds that the pure food and drugs act does not cover the knowingly false labeling of nostrums as to curative effect or physiological action. The president has called the attention of congress to this matter with a view of having provisions made correcting these defects. Fraudulent misrepresentations of the curative value of so-called remedies contribute a distinct menace to public health, and tend to bring pharmacy into disrepute by attaching the stigma of complicity. I commend your endorsement of such correction of the law.

During the past few months several of our esteemed members who are active in the administration of the pure food and drugs act, and also one who is an honored ex-president of this association, have been placed in a more or less embarrassing position. How far this association desires to go in expressing itself relative to this matter, or what the attitude of the president should be, may be deserving of careful judgment. I, however, assumed the authority to address the president of the United States, protesting against the removal of the chief of the bureau of chemistry, department of agriculture, Dr. H.

W. Wiley, and testifying our recognition of his integrity, ability, sound judgment and strict adherence to duty. I considered that such or some similar statement was due from this association, and hope that my action will have your endorsement. I trust that this association will also express, in a formal way at least, acknowledgement of the services of the chief of the drug laboratory, Dr. Lyman F. Kebler, and our confidence in him. Relative to ex-President Rusby, we cannot be led into any of the difficulties that might obtain with the chief of the bureau of chemistry and chief of the drug laboratory; in fact, expression is almost unnecessary, unless it be to again assure him of the continuation of our confidence and esteem, and deploring the unfortunate turn of affairs, which, without the possibility of reflecting adversely, has undoubtedly been a source of great annoyance to him.



HARVEY W. WILEY.



HENRY H. RUSBY.

Two men who are loved for the enemies they have made by enforcing the food and drugs act.

It is very important that the food and drugs laws of the several States harmonize, and such direction should receive our support as far as it is practical. This again suggests the importance of inter-association between all bodies having certain objects in common. The best opportunity for shaping laws of this character is possibly through the association of agricultural chemists, who would doubtless welcome our co-operation, and among their membership there are quite a few of our association.

The committee on drug reform has been diligently at work endeavoring to popularize and promote uniformity of legislation in different States, and also, which is equally important, to secure uniform administration in the enforcement of the pure food and drugs law. This committee has given some attention to the itinerant vending of medicines. Laws regulating the practice of medicine and pharmacy are primarily for the protection of the public. The same ideas which prompted the people to protect themselves against harmful or adulterated drugs or imposition, as well as ignorance and quackery, would obtain with regard to this method of selling medicines. In fact, it would seem that such a scheme circumvents the expressed desires of the people. I fully realize that this association is not in sympathy with that which constitutes the greater portion of this business, but would ask that you consider the advisability of expressing yourselves in favor of having all who sell or dispense medicines come under the supervision of pharmacy laws in the respective States. This method of vending is spreading rapidly in every section of this country, and the druggist, if not the pharmacist, is vitally interested. This association is concerned, because the plan of placing medicines in the homes induces at least the unnecessary taking of medicines, if not leading on to drug habituation and other coincident dangers.

The American Medical Association at their recent convention adopted a resolution discouraging dispensing by physicians. This custom is extensively followed, and in some localities is growing instead of abating. Leaving the pharmacist out of consideration entirely, such practice does not conform to the general declaration of the American Medical Association. The public is not protected when the same individual diagnoses, prescribes and dispenses, even though the physician be a pharmacist. If a physician dispenses, then the preparation he prescribes, or the components, should be subject to inspection. Drug laws are not just if they provide special privileges. One standard should obtain, regardless of who dispenses the preparations. Though the view expressed in the resolution has always been accepted by the majority, the endorsement again testifies the strong desire of the American Medical Association to correct practices which are not helpful to advancement.

The bill to establish a department of health promises considerable discussion before a measure is perfected that will be acceptable to the majority. There seems to be a fear, whether real or imaginary, that the fundamental right of the citizen to choose whatever mode of healing he shall employ will be abridged.

I believe that the bill does not contemplate such a move, but that it is intended to do valuable and much-needed service for all, and implies that the conservation of the health and physical well-being of the human race are of equal or greater importance than the conservation of animal and vegetable life.

I feel confident that the committee on national legislation has fully considered this important matter and will present the subject in more ample form than would be advised in this address. While our views would likely be in harmony, their

more considerate presentation will be of greater service to you in arriving at a conclusion for your action. I desire, however, to have your recommendation specifically provide for recognition of pharmacy in such department, and under the further assurance that the measure provides for the protection of public interests and welfare, and retains for all citizens their inherent right to employ any system of medical practice which in their judgment is most efficacious and trustworthy, let us give our counsel and support in the promotion of this necessary provision. Some must take the lead in this matter, and energetic interest should not, without just cause, be construed as being prompted by sinister or selfish motives.

It is neither practical nor desirable that the revision of the Pharmacopœia be discussed in this address. Relative to the scope of the Pharmacopœia there is perhaps a greater diversion of opinion between pharmacists and physicians than any other specific point. Believing the members of this association would favor a presentation of the subject from the physician's viewpoint, I took the liberty of requesting the council to extend an invitation to Dr. S. Solis-Cohen, and he has been pleased to accept our invitation and will address this body.

The revision of the United States Pharmacopœia is proceeding as rapidly as is possible for a work of such magnitude and responsibility. Due consideration has been given to reports and suggestions of the various bodies represented at the convention, and the work of deciding upon the subjects presented in these reports is nearly finished; in addition, the questions left undecided by the convention, which were referred to the committee of revision, have all been practically settled.

Within the last month the list of articles to be admitted to the United States Pharmacopœia, ninth revision, has been decided upon, and it is the intention of the chairman to give publicity to this proposed list.

An important change in the plan of revision has been made, whereby the sub-committees who are entrusted with the details could be immediately given subjects to work upon. This was done by proposing a list of articles that would certainly be admitted, like opium, cinchona, belladonna, nux vomica, etc. In this way no time has been lost, and now that the whole list has been voted upon, members are ready to take up all the other subjects.

The translation of the United States Pharmacopœia into Spanish has been of benefit to the association in the acquisition of membership from the West Indies. While Profs. Remington and Diaz encouraged these applications, it is safe to say that a closer pharmaceutical fealty now obtains, and we have reason to hope for further accessions.

The present revision of the National Formulary will evidence the elimination of many shortcomings. Unless conditions change materially, the Formulary should always remain the property of the American Pharmaceutical Association. The conditions are such, and the committees of the National Formulary and United States Pharmacopœia so constituted, that there is no reason why there should be conflict or disharmony. The committee will make their report during this convention, the work of revision being practically completed, and barring delays the Formulary should be ready for distribution by the first of next year.

Propaganda work has contributed much to the bringing together of physicians and pharmacists. Everyone realizes the possibility of carrying the idea beyond conservative bounds, but the chances are that time will correct such steps. Progress along any line is prompted by demand and directed by prevailing thought or conception of whatever is most conducive to the advantage of those directly concerned and interested. I am persuaded that the co-operative efforts of the two professions will ultimately adjust this propaganda, not only in strict accord with professional views, but conservative of public welfare.

In order to bring the National Formulary up to the standard which will make it entirely acceptable to physicians and pharmacists may require the elimination of certain formulas which should still be retained in some way that will make them readily accessible, and also maintain uniformity in composition and appearance of the preparations.

Up to this time the advisability of publishing a "Recipe Book" by the American Pharmaceutical Association has been questioned or rather discouraged. I consider such a proposition entirely practical and advantageous, and therefore commend for your reconsideration the publication of such a compilation.

The value of the pharmaceutical syllabus depends upon the co-operation of those engaged in teaching pharmacy, and those who thereafter critically inquire into the qualifications of the candidates who aspire to become pharmacists.

The latter should know what skill and knowledge are necessary for plying the vocation, and the educators advised of these needs can conform their teaching course for the preparation of students accordingly. These are essentially the ideas which prompted the syllabus. A clear and definite understanding is necessary, and actual use of the present edition is the only way to properly arrive at its defects. The acceptance which the work of the committee has received testifies the correctness of the presumption that a guide of this kind was desired.

I will not anticipate the report of the committee on patents and trade-marks. There is urgent necessity for reform, and the effort should be directed by co-operation between bodies interested in this correction. Quite a number of national associations have already given expression to views very similar to those held by the American Pharmaceutical Association. I would also call your attention to the advisability of bringing this matter before the Congress of Applied Chemistry, to convene in the United States next year, for discussion and action.

The Congress of Applied Chemistry meets in this country for the first time, and will welcome co-operation from this body. They are solicitous that the American Pharmaceutical Association have proper representation of our interests at the respective sections, and also with respect to the congress as a whole. I would ask that the council, acting with the president, be directed and empowered to provide for representation through delegates. I suggest that the meeting of this congress be kept in mind during the sessions of the association

and sections, with a view of participating in the mutual benefits to be derived from this gathering.

Invitation was extended to the American Pharmaceutical Association to be represented at the meeting of the National Civic Federation, in New York City, January 12th to 14th, 1911. I accordingly appointed a delegation of six, with Dr. William Jay Schieffelin as chairman, who addressed the convention on the subjects of "Uniform State Legislation" and the "Restriction of the Sale of Narcotic Drugs."

It was my pleasure to meet with the delegation of the American Pharmaceutical Association at the convention of the National Wholesale Druggists' Association last November.

Chairman Lyman F. Kebler addressed the meeting, and your president was given the opportunity to speak briefly on the related interests of these two organizations.

The business of this association should be transacted by a delegated body representing the membership. This subject, which has had our attention for quite a number of years, should be disposed of. So much has heretofore been said relative to this important matter that I will await the report and recommendations of the committee on reorganization.

The national congress is not in a strict sense a deliberating but a deciding body. The work is done in the committee rooms; were it otherwise, very little would be accomplished. So in our organization it is essential, for systematic and expeditious transaction, that a smaller but representative body shape and conduct the business of this association. A committee charged with such responsibilities must be carefully selected; when practicable, members should be nominated, so as to be fairly representative of the various sections of the country, though fitness is of first consideration. The meetings of this committee should not interfere with the transactions of the association or sections. This will require sacrifice on the part of at least some of the members, but every one should be willing to take a turn at serving in this capacity. While powers to transact the business of the association should be delegated, and the committee not embarrassed, the thought should not be lost that the committee is a creation of the association.

Our voting system appears to give quite general satisfaction. I would, however, recommend that the ballots for the presidential candidates be printed separately—that is, a separate voting slip for each of the candidates nominated for that office. While the inference has not been made, this would prevent any possibility of advantage through position on the ticket.

We have had a fairly prosperous year. The cash balance has been increased, though the permanent funds have not been largely augmented.

While we are increasing our membership, the problem of securing the greatest number of new members each year at a minimum expense is one which demands business judgment, and should be carefully considered by the association. I am firmly convinced that the American Pharmaceutical Association should go about the work of securing membership in a business-like manner without too closely contending that members should come to the association without solicitation.

I consider that the real purpose of life membership in an organization is to help the association. It is usually arranged for the purpose of enabling members to contribute a substantial sum to the organization and receive life membership as a recognition of the contribution, and should not be offered by the American Pharmaceutical Association as an opportunity for members to make a good financial investment for themselves. Our present rules should be investigated with a view of revising them accordingly.

We are living in an age of endowments for educational purposes. A generation ago men like Ebert recognized the necessity of endowing the American Pharmaceutical Association in order to place it in a position to encourage such aims. This and other endowment plans should be thoroughly understood by our members so they can appreciate the necessity and advantages of large and permanent endowments and of a good working capital. The contribution of small amounts from time to time by each member will insure an accumulation of large funds for the association.

The president elected to serve this association is not always as familiar with the transactions or scheme planned for conducting the work of this organization as he should perhaps be. This seems to me to be very essential, and I would suggest that it become the duty of the general secretary to acquaint the president-elect in a general way relative to the conduct of his office. The work of the numerous committees makes it possible to include practically every important suggestion the president contemplated embodying in his address. It is quite unnecessary to have duplication, and on the other hand he might deem it advisable to lend emphasis to some of their recommendations: I therefore suggest that the committees and chairmen of the different sections acquaint the president with the more important items of their respective reports some time prior to the annual meeting.

The work of the American Pharmaceutical Association is conducted largely through the council, special and standing committees and the sections. Recommendations for changes in by-laws, places best suited for meeting, cutting down traveling and hotel expenses, etc., have entered into nearly every presidential address, so I will refrain. The history and progress of the association and that of American pharmacy have been ably reviewed by many of my predecessors; I have accordingly contented myself with speaking of the aims, purposes and greater possibilities of association work, with the inclusion of references that had to do with the current year's activities.

I again express my sincere and grateful thanks for the preference shown me. My desire has not been for distinction, but rather that I might share in the work of my confreres in the American Pharmaceutical Association and contribute at least slight service to humanity.

G. M. Beringer, of Camden, N. J., moved that the address be referred to a committee of five, which was done, the committee consisting of G. M. Beringer, O. F. Claus, C. W. Johnson, J. O. Burge, and A. R. L. Dohme. The report of this committee was made at a later session.

RECEPTION OF DELEGATES.

Fred S. Carter, of Boston, was introduced as a delegate from the National Wholesale Druggists' Association. In responding he said that while his organization might be like Martha, and the one he was addressing like Mary who "hath chosen that good part which shall not be taken away from her," still, he suspected, that Martha had many times saved Mary from having to eat a cold dinner.



PROF. JOSE P. ALACAN.

University of Havana, who in the name of forty-odd Cuban members, invited the association to meet at his city soon.

President Eberle resumed the chair and introduced F. C. Godbold, of New Orleans, who spoke as a representative of the National Association of Retail Druggists. While that organization had not done all that was wanted, its accomplishments had been sufficient to make it pay to keep it up. Co-operation was better than competition; business friendliness was a tendency of the times.

Dr. R. A. Hatcher, of New York, spoke on behalf of the American Medical Association. There was no lack of appreciation on his part of the shortcomings of medical men, he said, and doubtless there were shortcomings on the part of pharmacists as well, but he would not attempt to discuss them before the American Pharmaceutical Association. He expressed the hope that each profession would solve its own problems.

At this point J. P. Remington introduced José P. Alacan, of the University of Havana, who was one of the two or three score of Cuban members of the association. Mr. Alacan read an invitation to the association to hold an early meeting at his city, signed by all its members resident in Cuba. This invitation was duly referred.

M. I. Wilbert, of Washington, brought the greetings of the surgeon-general of the United States public health and marine-hospital service, and added a few words regarding the great work of the service in the matter of controlling many contagious diseases. He spoke, too, to the bulletins on melting points issued by the service, and the bulletins it shortly would issue on the standardizing of digitalis and ergot. The work of the hygienic laboratory of their branch of the service in compiling digests of criticisms on the United States Pharmacopoeia and the National Formulary were well known to the members. The usefulness of the hygienic laboratory was limited only by the appropriations made by congress for its sustenance, and the association could do a service to public health by using its influence to have such appropriations made larger.

NOMINATING COMMITTEE.

Before adjournment for the day a recess of five minutes was taken, during which the members present from the

respective States, etc., named their representatives to serve on the nominating committee. These were as follows, each State being entitled to two members, if that many were present:

Arkansas, J. B. Bond, Sr., J. F. Dowdy.
California, Mrs. Fletcher Howard.
Colorado, C. M. Ford, S. L. Bressler.
District of Columbia, H. E. Kalusowski, M. I. Wilbert.
Florida, E. Berger, W. O. Richtman.
Georgia, George F. rayne.
Idaho, C. O. Ballou.
Illinois, G. W. Sohrbeck, C. H. Avery.
Indiana, J. V. Farbre, F. H. Carter.
Iowa, J. W. Ballard, W. J. Teeters.
Kansas, L. D. Havenhill, W. S. Henrion.
Kentucky, C. Lewis Diehl.
Louisiana, F. C. Godbold, Philip Asher.
Maryland, J. F. Hancock, W. C. Powell.
Massachusetts, J. F. Finneran, R. C. McGowan.
Michigan, H. B. Mason, E. J. Rodgers.
Missouri, William Mittelbach, O. F. Claus.
Nebraska, R. A. Lyman.
New Jersey, Charles Holzhauer, C. E. Vanderkleed.
New York, C. A. Mayo, W. C. Anderson.
North Carolina, E. V. Zoeller, E. V. Howell.
North Dakota, H. L. Haussemann.
Ohio, G. B. Kauffman, C. S. Ashbrook.
Oklahoma, H. D. Kniseley, J. C. Burton.
Pennsylvania, J. L. Lemberger, J. C. Wallace.
Rhode Island, James O'Hare.
Tennessee, J. O. Burge, W. R. White.
Texas, R. H. Walker, E. G. Eberle.
Washington, C. W. Johnson.
Wisconsin, G. V. Kradwell, E. G. Reuber.
Cuba, J. P. Alacan.

At large (appointed by the chair), J. P. Remington, of Philadelphia; L. E. Sayre, of Lawrence, Kan.; A. R. L. Dohme, of Baltimore; H. M. Whelpley, of St. Louis; and Francis B. Hays, of New York.

The formal naming of this committee brought the first session to a close.

SECOND GENERAL SESSION.

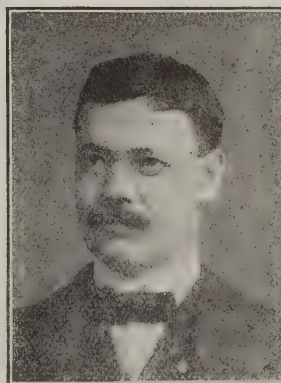
Tuesday Forenoon, August 15th.

President Eberle called the meeting to order at 10:15 A. M. Tuesday, and then was made the recipient of a gold-mounted and engraved gavel sent to him by his admiring fellow druggists of Dallas, the presentation being made in his usual happy vein by Mr. Remington.

This pleasant incident being over, it was announced that Secretary Caspari was somewhat indisposed, so H. P. Hynson, of Baltimore, acted as secretary pro tem.

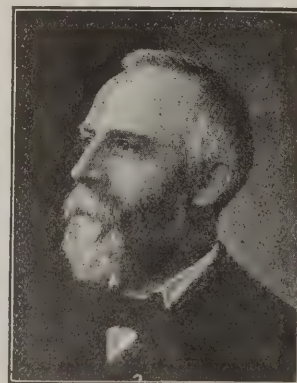
NOMINEES FOR OFFICE.

H. M. Whelpley, for the nominating committee, an-



EX-PRESIDENT J. H. BEAL.

The new Secretary and Editor.



CHARLES CASPARI, JR.

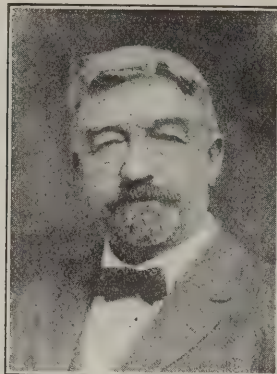
Secretary of the Association from 1894 to 1911; now retired.

nounced that the committee had made the following nominations of officers for the year 1912-13, to be voted for by ballots to be mailed to each member of the association:

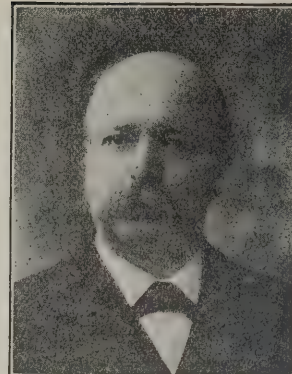
For president: W. B. Day, of Chicago; Charles Holzhauer, of Newark; and William Mittelbach, of Boonville, Mo.



WILLIAM B. DAY.



CHARLES HOLZHAUSER.



WILLIAM MITTELBACH.

The Three Nominees for President for 1912-13.

For first vice-president: José P. Alacan, of Havana; Charles M. Ford, of Denver; and Otto F. Claus, of St. Louis.

For second vice-president: R. H. Walker, of Gonzales, Texas; C. A. Mayo, of New York; and W. J. Teeters, of Iowa City.

For third vice-president: J. O. Burge, of Nashville; C. H. Packard, of Boston; and A. H. Clark, of Chicago.

For members of the council (three to be voted for): F. C. Godbold, of New Orleans; W. C. Anderson, of Brooklyn; G. B. Kauffmann, of Columbus, Ohio; C. W. Johnson, of Seattle; L. E. Sayre, of Lawrence, Kan.; E. Berger, of Tampa, Fla.; T. G. E. Otto, of Columbus, Ind.; J. C. Wallace, of New Castle, Pa.; and F. W. Meissner, of La Porte, Ind.

Council minutes were read by Secretary England.

In a letter from Oscar Oldberg read before the council, it was proposed that a new section be established, to be known as the section on United States Pharmacopœia. While this proposal was not endorsed in full, it led to the adoption of a resolution that special provision be made for meetings of the association's two committees devoted respectively to the Pharmacopœia and the National Formulary.

Mr. Beal announced that council meetings were open to all members of the association. Some members who had attended council meetings when a similar announcement had been made on a previous occasion were made to feel so uncomfortable that they did not remain long or return to another.

The minutes were approved as read.

SECRETARY'S REPORT.

Secretary Caspari's report on the financial accounts in his hands was read by Acting Secretary Hynson. A short abstract of this report follows:

National Formulary Account.

Receipts for the fiscal year.....	\$3,161.21
Disbursements, ditto.....	1,023.76
Balance	\$2,137.45
Total sales, ditto.....	\$3,758.36
Stock on hand, 1,094 copies.....	
Receipts since 1888.....	\$43,480.10
Expenses, ditto.....	22,634.02
Balance	\$20,846.08

TREASURER'S REPORT.

Treasurer Whelpley presented his report by title, but read in full the following addendum and summary of it:

Judged from the viewpoint of the treasurer, the success of the A. Ph. A. during a fiscal year is measured by the growth of the cash balance, the increase in membership and the condition of the special funds. This is the first time since 1900 that a fiscal year has occurred without an annual meeting. This condition has eliminated from our current expenses some of the items incident to an annual meeting and adds several hundred dollars to the apparent prosperity for the year. The available cash assets have increased \$1963.25 since my last report and amount to \$5701. This open account in the International Bank of St. Louis draws 3 per cent. interest on the daily balance and is compounded monthly. The amount on hand has not been considered sufficient to justify withdrawing a portion for investment in bonds.

The number of new members during the period from one annual meeting to another is reported by the secretary of the council at the closing session of each annual meeting. It must

be remembered that it has been fifteen months since the last meeting and that only nine months intervened between the 1909 and the 1910 meetings. The treasurer's records show 258 new members, compared with 406, the previous fiscal year. This decrease of 148 is explained by the fact that no annual meetings occurred in the period covered. The special membership campaign for the past year cost \$197.82, compared with \$337.96, the previous year. The membership roll is as follows:

Active members.....	2353
Life members.....	107
Life members, old style.....	24
(Do not receive the Proceedings, see Proceedings, 1885, page 525)	
Honorary members.....	3

Total 2490

The schedule of fees for life membership requires revision, as some fees are decidedly to the disadvantage of the association.

The special funds in the hands of the treasurer are of two kinds. One class is the property of the association and the other class of funds are held in trust to be expended under specific conditions. The five permanent funds, which are the property of the association, have increased \$1069.63 since my last report.

Life membership fees amount to \$75 and the contributions to the endowment fund, \$17. With these two exceptions, the growth of the permanent funds is from interest on the amounts reported one year ago. The number of funds held in trust has been augmented by the Hallberg memorial fund, which was started February 16th, 1911. The three trust funds amount to \$8424.61. This is an increase of \$4499.87 during twelve months. Of this amount \$4320.80 has been subscribed, and the remainder, \$179.07, is interest.

The association now holds \$15,701.08 in bonds and cash; \$29,623.37 of permanent funds and \$8424.61 of trust funds. The total amount is \$53,749.06.

The permanent funds on July 1st, 1911, are as follows:

	1910.	1911.
Life membership fund.....	\$17,319.85	\$17,964.68
Endowment fund.....	5,049.70	5,269.46
Ebert legacy fund.....	2,844.00	2,923.47
Centennial fund	2,413.67	2,501.20
Ebert prize fund.....	927.12	964.56

Total	\$28,554.34	\$29,623.37
		28,554.34

Net increase during fiscal year..... \$1,069.03

The association assets may be summed up as follows:

Cash in bank.....	\$5,701.08
Bonds	10,000.00
Available assets	\$15,701.08
Permanent funds.....	29,623.37

Total association assets	\$45,324.46
Hallberg memorial fund (held in trust)....	\$3,914.70
Procter monument fund (held in trust)....	4,478.91
College prize fund (held in trust).....	31.00
Grand total.....	\$53,749.06

The collection of the dues is a duty which demands constant attention. I have for three years followed the plan of prompt and systematic requests for payment and I find that members, who according to the old records were at times delinquent for three or four years, now pay promptly.

The addendum to the treasurer's report was provided for by a motion adopted at the 1903 meeting (Proceedings, page 117). The first addendum appears on page 35 of the Proceedings for 1904. It must be remembered that my statements necessarily refer to the condition of the finances and membership, July 1st, 1911. Owing to the date of the 1911 meeting, important changes have occurred since the close of the fiscal year. This is my third annual report, and I must again thank the officers and members for loyal support in the discharge of my duties.

The reports of these two officers were referred to the auditing committee.

WORK ON THE PHARMACOPŒIA.

Mr. Remington referred to the work of the committee of revision of the United States Pharmacopœial Convention,

saying that the committee had been in what might be termed "executive session" for a year or more, during which time it had almost completed its work on the scope of the next issue of the Pharmacopœia. In this connection he referred to the peculiar interest of physicians in this part of the work, and introduced the chairman of the sub-committee on admissions to and deletions from the Pharmacopœia, Dr. Solomon Solis Cohen,* of Philadelphia.

Dr. Solis Cohen was greeted by applause when he advanced to the front, his remarks were punctuated throughout by indications of approval, and when he had finished his remarks enthusiasm was at a high pitch.

DR. SOLIS-COHEN'S ADDRESS.

The Doctor began by saying that he spoke not as an official representative of the medical profession or of the committee of revision, but for himself alone, but he believed most of what he would say would be endorsed by his confreres. Instead of speaking on "The Scope of the United States Pharmacopœia," as had been announced, he preferred to entitle his remarks, "The Relation of the United States Pharmacopœia to the Practice of Medicine."

Few members of the committee of revision who had so gaily accepted assignments realized the burdens which they were assuming. In the revision committee there had been harmony as to scope, but differences of opinion and ideas as to details. The purpose of having committees rather than individuals to consider and decide these things was to elicit different views. In the committee on scope each member had been open to argument, but none was so weak as to yield simply to mere numbers. No errors appeared in the work of the committee as a result of neglect, carelessness or inattention, as all omissions and additions had been made deliberately after careful consideration. The work on scope was not yet complete, but had advanced to a point where definite action was in sight.

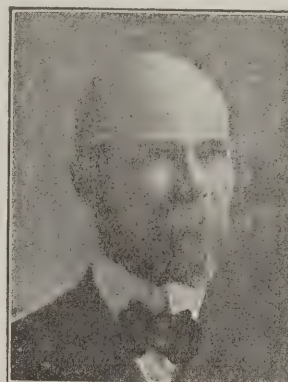
There was a tendency at the present time to decry the use of drugs in the practice of the healing art. There was hardly a subject on which so much nonsense had been spoken or written. True, it was an error to prescribe too much or unwisely, but it must be borne in mind that it is not the use but the abuse of medicine that is to blame for its ill effects. Both drugs and surgery were valuable aids in the hands of physicians, but both should be used understandingly. Neither the surgeon nor the general prescriber was exempt from the possibility of making an error, nor yet was the drugless practitioner of medicine. Rest cures were not so good as work cures in some cases. The future of medicine did not lie in physiologic measures any more than it did in drugs. On this subject he assumed to speak with some authority, as he had done something in physiologic practice. It was all right in its place; so were drugs; and so were mental suggestions and many other means used in practice. All were employed by good physicians. It was indeed a most unwise physician who would tie one hand behind him and then go into combat with death.

The infection known as medical nihilism had begun at Vienna and had found its best culture media in the colleges of medicine in France, England and the United States. Laboratory investigation alone, in the treatment of disease, was useless; clinical study at the bedside insufficient. The clinician and the pharmacologist were foolish to sneer at one another; each was necessary.

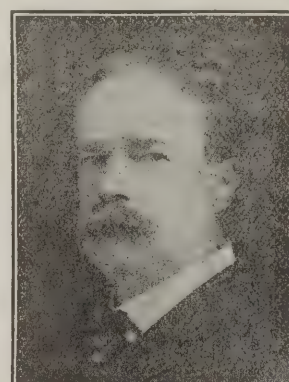
"Why," asked Dr. Solis Cohen, "does the young physician fall an easy prey to the 'detail' man?" And as he with his hand turned an imaginary crank, he imitated the phonograph-like talk of the agent of the manufacturing medical specialist, who tells the physician what to prescribe and how to prescribe it. He said that it was not the weapon itself, but a knowledge of how to use any weapon that came to hand that was of value to the soldier. If no rifles were obtainable, then an ability to fight with bows and arrows was desirable, and if there were no bows and arrows, commend him to the warrior who could win his combat with pebbles. "I take off my hat to the country doctor," said he, amid applause. "He is the man who knows from long experience what he can do to help the sick with simple measures—measures now called obsolete and useless by some. I have met the country doctor at the bedside and I know whereof I speak. When he reports that he has observed the patient and has applied a remedy I respect him and recognize his worth. He has been able by himself alone to produce results that I envy. I am not one to deprive him of the weapons that he knows

so well how to use." He said that in medicine and in Pharmacopœia-making, we should "prove all things" and "hold fast to that which is good."

Great strides had been made in medicine and in the curricula of institutions which taught medicine since Dr. Solis-Cohen was a student. Pathologists had returned to the teachings of the wise men of hundreds of years ago, but had a different nomenclature. While the old practitioners had had their "peccant humors," we had our "toxins." Just as we laugh at the older men, our grandchildren will doubtless laugh at our jargon. There is a "jargon" for each generation. Preventive medicine, with all its modernity is but a return to old practices; the fathers called it isopathy. The speaker did not like any "pathy," as those who strove to prevent disease and relieve suffering were not "pathists," but physicians. Our present-day advancement in medicine was due largely to the advancement of collateral branches of science. Titanus antitoxin would go into the next revision of the Pharmacopœia just as diphtheria antitoxin had gone into the last one. He wanted the United States Pharmaco-



HENRY M. WHELPLEY.
Treasurer; former President,
former Acting Secretary, once
Local Secretary, not to men-on the work of revising the
tion several "etc's."



JOSEPH P. REMINGTON.
He reported great progress
United States Pharmacopœia.

pœia to include every medicinal substance which can be used to advantage in the healing of the sick, new ones to be added as they appear. The official book must be broad, even though drugs are not the most important means employed to help patients. He favored the use of mental suggestion, but wanted it used with discretion and honesty. His quarrel with eddyism was not on account of the kind of treatment it employed, but because of its underlying fallacy and danger. Faith gave courage and strength and so is helpful in the treatment of disease. Neither did he object to Still's mechanical treatment, but to his ignorance of pathology, leading to its misapplication. In the same way he objected to drugs—the giving of too large or too small doses or the administration of the drugs that would do harm. The value of any kind of treatment depended on the sanity and knowledge of the practitioner using it, and year by year the knowledge of physicians is enlarged.

As a peroration he effectively quoted some lines from Gabriel Dante Rossetti in which is expressed in poetic language the idea that as we rise and advance new worlds open up to us.

When the loud and long applause following the delivery of this address had died down, F. E. Stewart moved that the thanks of the association be tendered to Dr. Solis-Cohen by a rising vote.

In seconding this motion J. F. Hancock spoke of Dr. Cohen's words as being instructive, sane and interesting. J. M. Good wanted to have them published in pamphlet form for general distribution among pharmacists and physicians.

John Uri Lloyd, of Cincinnati, said he would have come twice the distance he had traveled to attend the convention, just to have heard Dr. Solis-Cohen's argument for a cosmopolitan Pharmacopœia. He referred feelingly to his old teacher, Dr. Roberts Bartholow, and said that had he lived longer there would have been less unbalanced physiological investigation.

* See page 526.

Dr. Stewart's motion prevailed, unanimously.

In connection with Dr. Solis-Cohen's address, the following circular of the executive committee of the revision committee of the United States Pharmacopœial Convention, dated August 10th, 1911, is of especial interest:

ADMISSIONS AND DELETIONS.

The lists of admissions and deletions (Circular 149, pages 479 to 486) represent the articles proposed for admission and deletion and will form the basis of the United States Pharmacopœia, ninth revision. It is the first report of the executive committee of revision.

Some changes will undoubtedly be made before the publication of the work.

Comments will be referred to the executive committee for due consideration.

Respectfully submitted,
Joseph P. Remington,
Chairman of the Executive Committee.

Admitted to the United States Pharmacopœia, Ninth Revision.

Acacia.
Acetanilidum.
Acetonum.
Acetphenetidinum.
Acetum Scillæ.
Acidum Aceticum.
Acidum Aceticum Dilutum.
Acidum Aceticum Glaciale.
Acidum Benzoicum.
Acidum Boricum.
Acidum Citricum.
Acidum Gallicum.
Acidum Hydriodicum Dilutum.
Acidum Hydrobromicum Dilutum.
Acidum Hydrochloricum.
Acidum Hydrochloricum Dilutum.
Acidum Hydrocyanicum Dilutum.
Acidum Hypophosphorosum.
Acidum Hypophosphorosum Dilutum.
Acidum Lacticum.
Acidum Nitricum.
Acidum Nitricum Dilutum.
Acidum Nitrohydrochloricum.
Acidum Nitrohydrochloricum Dilutum.
Acidum Oleicum.
Acidum Phosphoricum.
Acidum Phosphoricum Dilutum.
Acidum Salicylicum.
Acidum Stearicum.
Acidum Sulphuricum.
Acidum Sulphuricum Aromaticum.
Acidum Sulphuricum Dilutum.
Acidum Tannicum.
Acidum Tartaricum.
Acidum Trichloroaceticum.
Aconitina.
Aconitum.
Adeps.
Adeps Benzoinatus.
Adeps Lanæ.
Adeps Lanæ Hydrosus.
Æther.
Æthylis Carbamas.
Æthylis Chloridum.
Alcohol.
Alcohol Absolutum.
Alcohol Dilutum.
Aloe.
Aloe Purificata.
Aloinum.
Althea.
Alumen.
Alumen Exsiccatum.
Alumini Hydroxidum.
Ammonii Benzoas.
Ammonii Bromidum.
Ammonii Carbonas.
Ammonii Chloridum.
Ammonii Iodidum.
Ammonii Salicylas.
Ammonii Valeras.
Amygdala Dulcis.
Amylis Nitris.
Amylum.
Anisum.
Anthemis.
Antimonii et Potassii Tartras.
Antipyrina.
Apocynum.
Apomorphinæ Hydrochloridum.
Aqua.
Aqua.
Aqua Ammonizæ.
Aqua Ammonizæ Fortior.
Aqua Amygdalæ Amaræ.
Aqua Anisi.
Aqua Aurantii Florum Fortior.
Aqua Camphoræ.
Aqua Chloroformi.
Aqua Cinnamomi.
Aqua Creosoti.
Aqua Destillata.
Aqua Fœniculi.
Aqua Hydrogenii Dioxidum.

Aqua Menthæ Piperitæ.
Aqua Menthæ Viridis.
Aqua Rosæ Fortior.
Argenti Nitras.
Argenti Nitras Fusus.
Argenti Oxidum.
Arnica.
Arseni Iodidum.
Arseni Trioxidum.
Asafœtida.
Aspidium.
Atropia.
Atropinæ Sulphas.
Aurantii Amari Cortex.
Aurantii Dulcis Cortex.
Auri et Sodii Chloridum.
Balsamum Peruvianum.
Balsamum Tolutanum.
Belladonnæ Folia.
Belladonnæ Radix.
Benzaldehydum.
Benzinum Purificatum.
Benzoinum.
Benzosulphinidum.
Berberis.
Betanaphthol.
Bismuthi Subcarbonas.
Bismuthi Subgallas.
Bismuthi Subnitras.
Bismuthi Subsalicylas.
Bromoformum.
Bromum.
Buchu.
Caffeina.
Caffeina Citrata.
Caffeina Citrata Effervescens.
Calcii Bromidum.
Calcii Carbonas Præcipitatus.
Calcii Chloridum.
Calcii Hypophosphis.
Calcii Phosphas Præcipitatus.
Calcii Sulphas Exsiccatus.
Calumba.
Calx.
Calx Chlorinata.
Calx Sulphurata.
Cambogia.
Camphora.
Camphora Monobromata.
Cannabis Indica.
Cantharis.
Capsicum.
Carbo Animalis Purificatus.
Carbo Ligni.
Cardamomum.
Carum.
Caryophyllus.
Cera Alba.
Cera Flava.
Ceratum.
Ceratum Cantharidis.
Ceratum Resinæ.
Ceratum Resinæ Compositum.
Cetaceum.
Charta Sinapis.
Chloralformamidum.
Chloralum Hydratum.
Chloroformum.
Chondrus.
Chromii Trioxidum.
Chrysarobinum.
Cimicifuga.
Cinchona.
Cinchona Rubra.
Cinchonidinæ Sulphas.
Cinchonizæ Sulphas.
Cinnamomum Saigonicum.
Cinnamomum Zeylanicum.
Coca.
Cocaina.
Cocainæ Hydrochloridum.
Coccus.
Codeina.
Codeinæ Phosphas.
Codeinæ Sulphas.
Colchici Semen.
Colchicina.
Colloidum.
Colloidum Flexile.
Colocynthis.
Convallaria.

Copaiba.
Coriandrum.
Creosotum.
Cresol.
Creta Praeparata.
Cubeba.
Cupri Sulphas.
Decocta.
Digitalis.
Elaterinum.
Elixir Adjuvans.
Elixir Aromaticum.
Elixir Ferri, Quininæ et Strychninæ Phosphatum.
Emplastrum Adhæsivum.
Emplastrum Belladonnæ.
Emplastrum Capsici.
Emplastrum Plumbi.
Emulsum Amygdalæ.
Emulsum Asafœtidæ.
Emulsum Olei Morrhuæ.
Emulsum Olei Terebinthinæ.
Ergota.
Eriodictyon.
Eucalyptol.
Eucalyptus.
Euonymus.
Eupatorium.
Extractum Aloes.
Extractum Belladonnæ Foliorum.
Extractum Cannabis Indicæ.
Extractum Cimicifugæ.
Extractum Colocynthis.
Extractum Colocynthis Compositum.
Extractum Ergotæ.
Extractum Euonymi.
Extractum Gentianæ.
Extractum Glycyrrhizæ.
Extractum Glycyrrhizæ Purum.
Extractum Hyoscyami.
Extractum Nucis Vomicae.
Extractum Opii.
Extractum Physostigmatis.
Extractum Quassia.
Extractum Rhamni Purshianæ.
Extractum Rhei.
Extractum Stramonii.
Extractum Taraxaci.
Fel Bovis Purificatum.
Ferri Carbonas Saccharatus.
Ferri Chloridum.
Ferri et Ammonii Citras.
Ferri et Quininæ Citras Solubilis.
Ferri Hydroxidum cum Magnesii Oxido.
Ferri Phosphas Solubilis.
Ferri Sulphas.
Ferri Sulphas Exsiccatus.
Ferri Sulphas Granulatus.
Ferrum.
Ferrum Reductum.
Fluidextractum Aconiti.
Fluidextractum Apocyni.
Fluidextractum Aromaticum.
Fluidextractum Aurantii Amari.
Fluidextractum Belladonnæ Radicis.
Fluidextractum Berberidis.
Fluidextractum Buchu.
Fluidextractum Cannabis Indicæ.
Fluidextractum Capsici.
Fluidextractum Cimicifugæ.
Fluidextractum Cinchonæ.
Fluidextractum Cocæ.
Fluidextractum Colchici Seminibus.
Fluidextractum Convallariæ.
Fluidextractum Ergotæ.
Fluidextractum Eriodictyli.
Fluidextractum Eucalypti.
Fluidextractum Frangulæ.
Fluidextractum Gelsemi.
Fluidextractum Gentianæ.
Fluidextractum Glycyrrhizæ.
Fluidextractum Granati.
Fluidextractum Grindeliæ.
Fluidextractum Guaranae.
Fluidextractum Hamamelidis Foliorum.
Fluidextractum Hydrastis.
Fluidextractum Hyoscyami.
Fluidextractum Ipecacuanhæ.
Fluidextractum Krameria.
Fluidextractum Lobelia.
Fluidextractum Nucis Vomicae.
Fluidextractum Pilocarpi.
Fluidextractum Podophylli.
Fluidextractum Pruni Virginianæ.
Fluidextractum Rhamni Purshianæ.
Fluidextractum Rhamni Purshianæ Aromaticum.
Fluidextractum Rhei.
Fluidextractum Rhus Glabra.
Fluidextractum Rosæ.
Fluidextractum Sarsaparillæ.

Fluidextractum Sarsaparillæ Compositum.
Fluidextractum Scillæ.
Fluidextractum Senegæ.
Fluidextractum Sennæ.
Fluidextractum Serpentariae.
Fluidextractum Spigellæ.
Fluidextractum Staphisagriae.
Fluidextractum Sumbul.
Fluidextractum Taraxaci.
Fluidextractum Tritici.
Fluidextractum Uvæ Ursi.
Fluidextractum Valerianæ.
Fluidextractum Viburni Prunifolii.
Fluidextractum Xanthoxyli.
Fluidextractum Zingiberis.
Fœniculum.
Frangula.
Gambir.
Gelatinum.
Gelatinum Glycerinatum.
Gelsemium.
Gentiana.
Glandulæ Suprarenales Sicca.
Glandulæ Thyroideæ Sicca.
Glycerinum.
Glycerinum Acidi Tannici.
Glyceritum Amyli.
Glyceritum Boroglycerini.
Glyceritum Hydrastis.
Glyceritum Phenolis.
Glycyrrhiza.
Glycyrrhizinum Ammoniatum.
Gossypii Cortex.
Gossypium Purificatum.
Granatum.
Grindelia.
Guaiaacoli.
Guaiaacolis Carbonas.
Guaiaacum.
Guarana.
Hæmatoxylon.
Hamamelidis Folia.
Hexamethylenamina.
Homatropinæ Hydrobromidum.
Humulus.
Hydrargyri Chloridum Corrosivum.
Hydrargyri Chloridum Mite.
Hydrargyri Iodidum Flavum.
Hydrargyri Iodidum Rubrum.
Hydrargyri Oxidum Flavum.
Hydrargyri Oxidum Rubrum.
Hydrargyrum.
Hydrargyrum Ammoniatum.
Hydrargyrum cum Creta.
Hydrastina.
Hydrastininæ Hydrochloridum.
Hydrastis.
Hyoscinæ Hydrobromidum.
Hyoscyaminæ Hydrobromidum.
Hyoscyamus.
Infusa.
Infusum Digitalis.
Infusum Sennæ Compositum.
Iodoformum.
Iodum.
Ipecacuanha.
Jalapa.
Kaolinum.
Kino.
Krameria.
Lactucarium.
Leptandra.
Limonis Cortex.
Limonis Succus.
Linimentum Ammonia.
Linimentum Belladonnæ.
Linimentum Calcis.
Linimentum Camphoræ.
Linimentum Chloroformi.
Linimentum Saponis.
Linimentum Saponis Mollis.
Linimentum Terebinthinæ.
Linum.
Liquor Acidi Arsenosi.
Liquor Ammonii Acetatis.
Liquor Arseni et Hydrargyri Iodidi.
Liquor Calcis.
Liquor Chlori Compositus.
Liquor Cresolis Compositus.
Liquor Ferri Chloridi.
Liquor Ferri et Ammonii Acetatis.
Liquor Ferri Subsulphatis.
Liquor Ferri Tersulphatis.
Liquor Formaldehydi.
Liquor Hydrargyri Nitratis.
Liquor Iodi Compositus.
Liquor Magnesii Citratis.
Liquor Plumbi Subacetatis.
Liquor Plumbi Subacetatis Dilutus.
Liquor Potassii Arsenitis.
Liquor Potassii Citratis.
Liquor Potassii Hydroxidi.
Liquor Sodæ Chlorinatæ.
Liquor Sodii Arsenatis.
Liquor Sodii Hydroxidi.
Liquor Zinci Chloridi.
Lithii Bromidum.

- Lithii Carbonas.
 Lithii Citras.
 Lithii Citras Effervescens.
 Lobelia.
 Lupulinum.
 Lycopodium.
 Magnesii Carbonas.
 Magnesii Oxidum.
 Magnesii Oxidum Ponderosum.
 Magnesii Sulphas.
 Magnesii Sulphas Effervescens.
 Maltum.
 Manganii Dioxidum Præcipitatum.
 Manna.
 Massa Ferri Carbonatis.
 Massa Hydrargyri.
 Matricaria.
 Mel.
 Mel Depuratum.
 Mel Rosæ.
 Metha Piperita.
 Mentha Viridis.
 Menthol.
 Methylis Salicylas.
 Methylthioninæ Hydrochloridum.
 Mezereum.
 Mistura Cretæ.
 Mistura Glycyrrhizæ Composita.
 Morphina.
 Morphine Acetas.
 Morphine Hydrochloridum.
 Morphine Sulphas.
 Moschus.
 Mucilago Acaciæ.
 Mucilago Sassafras Medullæ.
 Mucilago Tragacanthæ.
 Myristica.
 Myrrha.
 Nux Vomica.
 Oleatum Atropinæ.
 Oleatum Cocainæ.
 Oleatum Hydrargyri.
 Oleatum Veratrinæ.
 Oleoresina Aspidii.
 Oleoresina Capsici.
 Oleoresina Cubebæ.
 Oleoresina Piperis.
 Oleoresina Zingiberis.
 Oleum Amygdalæ Amaræ.
 Oleum Amygdalæ Expressum.
 Oleum Anisi.
 Oleum Aurantii Corticis.
 Oleum Betulæ.
 Oleum Cadinum.
 Oleum Cajuputi.
 Oleum Cari.
 Oleum Caryophylli.
 Oleum Cinnamomi.
 Oleum Coriandri.
 Oleum Cubebæ.
 Oleum Eucalypti.
 Oleum Foeniculi.
 Oleum Gaultheriæ.
 Oleum Gossypii Seminis.
 Oleum Juniperi.
 Oleum Lavandulæ Florum.
 Oleum Limonis.
 Oleum Lini.
 Oleum Menthæ Piperitæ.
 Oleum Menthæ Viridis.
 Oleum Morrhuæ.
 Oleum Myristicæ.
 Oleum Olivæ.
 Oleum Picis Liquidæ.
 Oleum Pimentæ.
 Oleum Ricini.
 Oleum Rosæ.
 Oleum Rosmarini.
 Oleum Santali.
 Oleum Sassafras.
 Oleum Sinapis Volatile.
 Oleum Terebinthinæ.
 Oleum Terebinthinæ Rectificatum.
 Oleum Theobromatis.
 Oleum Thymi.
 Oleum Tiglii.
 Opil Pulvis.
 Opium.
 Opium Deodoratum.
 Opium Granulatum.
 Pancreatinum.
 Paraffinum.
 Paraldehydum.
 Pareira.
 Pelletierinæ Tannas.
 Pepo.
 Pepsinum.
 Petrolatum.
 Petrolatum Album.
 Petrolatum Liquidum.
 Phenol.
 Phenol Liquefactum.
 Phenylis Salicylas.
 Phosphorus.
 Physostigma.
 Physostigminæ Salicylas.
 Physostigminæ Sulphas.
 Pilocarpinæ Hydrochloridum.
 Pilocarpinæ Nitras.
 Pilocarpus.
 Pilulæ Aloes.
 Pilulæ Asafetidæ.
 Pilulæ Ferri Carbonatis.
 Pilulæ Ferri Iodidi.
 Pilulæ Phosphori.
 Pilulæ Rhei Compositæ.
 Pimenta.
 Piper.
 Pix Liquida.
 Plumbi Acetas.
 Plumbi Oxidum.
 Podophyllum.
 Potassii Acetas.
 Potassii Bicarbonas.
 Potassii Bitartras.
 Potassii Bromidum.
 Potassii Carbonas.
 Potassii Chloras.
 Potassii Citras.
 Potassii Citras Effervescens.
 Potassii Cyanidum.
 Potassii Dichromas.
 Potassii et Sodii Tartras.
 Potassii Ferrocyanidum.
 Potassii Hydroxidum.
 Potassii Hypophosphis.
 Potassii Iodidum.
 Potassii Nitras.
 Potassii Permanganas.
 Prunus Virginiana.
 Pulvis Aromaticus.
 Pulvis Cretæ Compositus.
 Pulvis Effervescens Compositus.
 Pulvis Glycyrrhizæ Compositus.
 Pulvis Ipecacuanhæ et Opil.
 Pulvis Jalapæ Compositus.
 Pulvis Rhei Compositus.
 Pyrethrum.
 Pyrogallol.
 Pyroxylum.
 Quassia.
 Quinina.
 Quininæ Bisulphas.
 Quininæ Hydrobromidum.
 Quininæ Hydrochloridum.
 Quininæ Salicylas.
 Quininæ Sulphas.
 Resina.
 Resina Jalapæ.
 Resina Podophylli.
 Resorcinol.
 Rhamnus Purshiana.
 Rheum.
 Rhus Glabra.
 Rosa Gallica.
 Sabal.
 Saccharum.
 Saccharum Lactis.
 Salicinum.
 Salvia.
 Sanguinaria.
 Santalum Rubrum.
 Santoninum.
 Sapo.
 Sapo Mollis.
 Sarsaparilla.
 Sassafras.
 Sassafras Medulla.
 Scilla.
 Scopolaminæ Hydrobromidum.
 Senega.
 Senna.
 Serpentina.
 Serum Antidiphthericum.
 Serum Præparatum.
 Sinapis Alba.
 Sinapis Nigra.
 Sodii Acetas.
 Sodii Arsenas.
 Sodii Arsenas Exsiccat.
 Sodii Benzoas.
 Sodii Bicarbonas.
 Sodii Boras.
 Sodii Bromidum.
 Sodii Carbonas Monohydratus.
 Sodii Chloras.
 Sodii Chloridum.
 Sodii Citras.
 Sodii Hydroxidum.
 Sodii Hypophosphis.
 Sodii Iodidum.
 Sodii Nitris.
 Sodii Phenolsulphonas.
 Sodii Phosphas.
 Sodii Phosphas Effervescens.
 Sodii Phosphas Exsiccat.
 Sodii Salicylas.
 Sodii Sulphas.
 Sodii Sulphis.
 Sodii Thiosulphas.
 Sparteinæ Sulphas.
 Spigelia.
 Spiritus Ætheris.
 Spiritus Ætheris Nitrosi.
 Spiritus Ammoniac.
 Spiritus Ammoniac Aromaticus.
 Spiritus Amygdalæ Amaræ.
 Spiritus Anisi.
 Spiritus Aurantii Compositus.
 Spiritus Camphoræ.
 Spiritus Chloroformi.
 Spiritus Cinnamomi.
 Spiritus Frumenti.
 Spiritus Gaultheriæ.
 Spiritus Glycerylis Nitratis.
 Spiritus Juniperi.
 Spiritus Juniperi Compositus.
 Spiritus Lavandulæ.
 Spiritus Menthæ Piperitæ.
 Spiritus Menthæ Viridis.
 Spiritus Vini Gallici.
 Staphisagria.
 Stillingia.
 Stramonium.
 Strontii Bromidum.
 Strontii Iodidum.
 Strontii Salicylas.
 Strophanthinum.
 Strophanthus.
 Strychnina.
 Strychninæ Nitras.
 Strychninæ Sulphas.
 Styax.
 Sulphonethylmethanum.
 Sulphonmethanum.
 Sulphur Lotum.
 Sulphur Præcipitatum.
 Sulphur Sublimatum.
 Sumbul.
 Suppositoria.
 Suppositoria Glycerini.
 Syrupus.
 Syrupus Acaciæ.
 Syrupus Acidi Citrici.
 Syrupus Acidi Hydriodici.
 Syrupus Amygdalæ.
 Syrupus Aurantii.
 Syrupus Aurantii Florum.
 Syrupus Calcii Lactophosphatis.
 Syrupus Calcis.
 Syrupus Ferri Iodidi.
 Syrupus Hypophosphitum.
 Syrupus Ipecacuanhæ.
 Syrupus Lactucarii.
 Syrupus Picis Liquidæ.
 Syrupus Pruni Virginianæ.
 Syrupus Rhei.
 Syrupus Rhei Aromaticus.
 Syrupus Sarsaparillæ Compositus.
 Syrupus Scillæ.
 Syrupus Scillæ Compositus.
 Syrupus Senegæ.
 Syrupus Sennæ.
 Syrupus Tolutanus.
 Syrupus Zingiberis.
 Talcum Purificatum.
 Taraxacum.
 Terebentum.
 Terebinthina.
 Terebinthina Canadensis.
 Terpinii Hydras.
 Thymol.
 Thymolis Iodidum.
 Tinctura Aconiti.
 Tinctura Aloes.
 Tinctura Arnicæ.
 Tinctura Asafetidæ.
 Tinctura Aurantii Amari.
 Tinctura Aurantii Dulcis.
 Tinctura Belladonnæ Foliorum.
 Tinctura Benzoini.
 Tinctura Benzoini Composita.
 Tinctura Calumbæ.
 Tinctura Cannabis Indicæ.
 Tinctura Cantharidis.
 Tinctura Capsici.
 Tinctura Cardamomi Composita.
 Tinctura Cinchonæ.
 Tinctura Cinchonæ Composita.
 Tinctura Cinnamomi.
 Tinctura Colchici Seminis.
 Tinctura Digitalis.
 Tinctura Ferri Chloridi.
 Tinctura Gambir Composita.
 Tinctura Gelsemii.
 Tinctura Gentianæ Composita.
 Tinctura Guaiaci.
 Tinctura Guaiaci Ammoniata.
 Tinctura Hydrastis.
 Tinctura Hyoscyami.
 Tinctura Iodi.
 Tinctura Kino.
 Tinctura Krameriæ.
 Tinctura Lactucarii.
 Tinctura Lavandulæ Composita.
 Tinctura Lobeliæ.
 Tinctura Moschi.
 Tinctura Myrrhæ.
 Tinctura Nucis Vomice.
 Tinctura Opil.
 Tinctura Opil Camphorata.
 Tinctura Opil Deodorati.
 Tinctura Physostigmatis.
 Tinctura Quassie.
 Tinctura Rhei.
 Tinctura Rhei Aromatica.
 Tinctura Sanguinariæ.
 Tinctura Strophanthi.
 Tinctura Stramonii.
 Tinctura Tolutana.
 Tinctura Valerianæ.
 Tinctura Valerianæ Ammoniata.
 Tinctura Vanillæ.
 Tinctura Veratri.
 Tinctura Zingiberis.
 Tragacantha.
 Trifolium.
 Trituratioes.
 Trituratio Elaterini.
 Trochisci Acidi Tannici.
 Trochisci Ammonii Chloridi.
 Trochisci Cubebæ.
 Trochisci Potassi Chloratis.
 Trochisci Sodii Bicarbonatis.
 Ulmus.
 Unguentum.
 Unguentum Acidi Borici.
 Unguentum Acidi Tannici.
 Unguentum Aquæ Rosæ.
 Unguentum Belladonnæ.
 Unguentum Chrysarobini.
 Unguentum Diachylon.
 Unguentum Hydrargyri.
 Unguentum Hydrargyri Ammoniati.
 Unguentum Hydrargyri Dilutum.
 Unguentum Hydrargyri Nitratil.
 Unguentum Hydrargyri Oxidi Flavil.
 Unguentum Iodi.
 Unguentum Iodoformi.
 Unguentum Phenolis.
 Unguentum Picis Liquidæ.
 Unguentum Stramonii.
 Unguentum Sulphuris.
 Unguentum Zinci Oxidi.
 Uva Ursi.
 Vanilla.
 Valeriana.
 Vanillinum.
 Veratrina.
 Veratrum.
 Viburnum Prunifolium.
 Vinum Antimonii.
 Xanthoxylum.
 Zinci Acetas.
 Zinci Carbonas Præcipitatus.
 Zinci Chloridum.
 Zinci Oxidum.
 Zinci Phenolsulphonas.
 Zinci Stearas.
 Zinci Sulphas.
 Zinci Valeras.
 Zincum.
 Zingiberis.

List of Articles Dropped from the Pharmacopœia.

- Emulsum Olei Morrhuæ cum Hypophosphitibus.
 Extractum Colchici Cormi.
 Extractum Digitalis.
 Extractum Hæmatoxyli.
 Extractum Kramerie.
 Extractum Leptandree.
 Extractum Malti.
 Extractum Scopolæ.
 Extractum Sumbul.
 Ferri Citras.
 Ferri et Ammonii Sulphas.
 Ferri et Ammonii Tartras.
 Ferri et Potassii Tartras.
 Ferri et Strychninæ Citras.
 Ferri Hydroxidum.
 Ferri Hypophosphis.
 Ficus.
 Fluidextractum Calami.
 Fluidextractum Calumbæ.
 Fluidextractum Chimaphilæ.
 Fluidextractum Chirata.
 Fluidextractum Conii.
 Fluidextractum Cubebæ.
 Fluidextractum Cypridii.
 Fluidextractum Digitalis.

Fluidextractum Eupatorii.
 Fluidextractum Geranii.
 Fluidextractum Lappæ.
 Fluidextractum Leptandree.
 Fluidextractum Lupulini.
 Fluidextractum Matico.
 Fluidextractum Mezelei.
 Fluidextractum Pareiræ.
 Fluidextractum Phytolacæ.
 Fluidextractum Quassia.
 Fluidextractum Quercus.
 Fluidextractum Quillajæ.
 Fluidextractum Rosæ.
 Fluidextractum Rubi.
 Fluidextractum Sabina.
 Fluidextractum Sanguinaria.
 Fluidextractum Scopulæ.
 Fluidextractum Scutellariæ.
 Fluidextractum Stillingiæ.
 Fluidextractum Stramonii.
 Fluidextractum Veratri.
 Geranium.
 Glyceritum Ferri, Quinina et Strychnina Phosphatum.
 Hamamelidis Cortex.
 Hedeoma.
 Hyoscyamina Sulphas.
 Infusum Pruni Virginianæ.
 Iodolum.
 Lappa.
 Lithii Benzoas.
 Lithii Salicylas.
 Mangani Sulphas.
 Mastiche.
 Matico.
 Mistura Ferri Composita.
 Mistura Rhei et Sodæ.
 Mucilago Ulmi.
 Naphthalenum.
 Oleatum Quinina.
 Oleoresina Lupulini.
 Oleum Adipis.
 Oleum Aethereum.
 Oleum Chenopodii.
 Oleum Copaibæ.
 Oleum Erigerontis.
 Oleum Sabina.
 Pilulæ Aloes et Mastiches.
 Pilulæ Aloes et Myrrha.
 Pilulæ Laxativæ Compositæ.
 Pilulæ Opii.
 Pilulæ Podophylli, Belladonnæ et Capsici.
 Piperina.

Plumbi Iodidum.
 Plumbi Nitras.
 Potassii Sulphas.
 Prunum.
 Pulvis Morphinae Compositus.
 Quercus.
 Quillaja.
 Rubus.
 Sabina.
 Santonica.
 S. ammonium.
 Scoparius.
 Scutellaria.
 Sodii Bisulphid.
 Sodii Nitras.
 Sodii Pyrophosphas.
 Spiritus Aetheris Compositus.
 Sulphuris Iodidum.
 Syrupus Ferri, Quinina et Strychnina Phosphatum.
 Syrupus Hypophosphitum Compositus.
 Syrupus Krameria.
 Syrupus Rubi.
 Tamarindus.
 Tinctura Aloes et Myrrha.
 Tinctura Cardamomi.
 Tinctura Gallæ.
 Tinctura Ipecacuanha et Opii.
 Tinctura Herbarum Recentium.
 Trochisci Gambir.
 Trochisci Glycyrrhizæ et Opii.
 Trochisci Krameria.
 Trochisci Santonini.
 Unguentum Gallic.
 Unguentum Hydrargyri Oxidi Rubri.
 Unguentum Potassii Iodidi.
 Unguentum Veratrina.
 Unguentum Zinci Stearatis.
 Viburnum Opulus.
 Vinum Album.
 Vinum Coca.
 Vinum Colchici Seminis.
 Vinum Ergotæ.
 Vinum Ferri.
 Vinum Ferri Amarum.
 Vinum Ipecacuanha.
 Vinum Opii.
 Vinum Rubrum.
 Zea.
 Zinci Bromidum.
 Zinci Iodidum.

New Articles Proposed for Admission to the United States Pharmacopœia (Ninth Revision.)

Ammonium Bifluoride.
 Antitetic Serum.
 Apol.
 Aspidospermine.
 Bismuth Beta-Naphthol.
 Buchu (Long).
 Caffeine Sodio-Benzate.
 Calcium Chloride (Hydrated Crystals).
 Calcium Glycerophosphate.
 Calcium Lactate.
 Carbonic Acid (Compressed).
 Condurango.
 Creosote Carbonate.
 Crocus.
 Diacetyl-Morphine.
 Diacetyl-Morphine Hydrochloride.
 Diastase.
 Emplastum Cantharidis.
 Erythrol Tetrinitrate.
 Fluorescein.

There are thirty-eight articles still under consideration for admission.

Edward Kremers thought that while the meeting was still under the spell which had been cast over it by Dr. Solis Cohen it was a good time for him to make a motion that less of the valuable time of the meetings be taken up with dreary and unnecessary details, and that more of it be devoted to such addresses as those present had just heard.

E. H. Bartley thought the committee on reorganization should take cognizance of this matter. The association agreed with Mr. Kremers.

In submitting his report as chairman of the committee on Procter monument fund, Mr. Hancock made a touching little talk on the life and work of William Procter. His report was accepted and the committee continued.

President Eberle announced that W. B. Day had been appointed on the syllabus committee to take the place of the late C. S. N. Hallberg, and that H. L. Taylor had been reappointed.

NATIONAL FORMULARY.

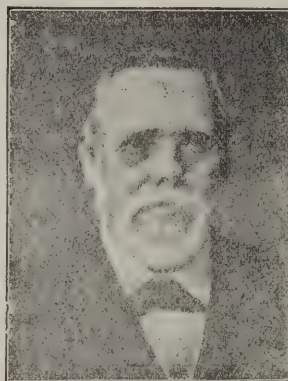
C. Lewis Diehl made his report as chairman of the National Formulary committee. It follows:

To the American Pharmaceutical Association:

Since the last report to this association the work of revision has been actively conducted, the correspondence requiring over 200 pages of bulletins, which were circularized to the members.

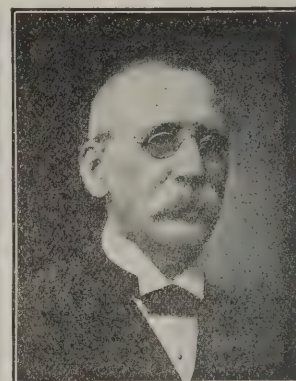
The conclusions reached through the medium of the bulletins, together with the conferences during the past few days at Boston, have enabled your committee practically to settle all pending problems.

While there yet may be found cause for a few changes in



EX-PRESIDENT C. LEWIS DIEHL.

Reporter on the Progress of Pharmacy from 1873 to 1891, and from 1895 to the present. Also Chairman of the National Formulary Revision Committee.



EX-PRESIDENT J. F. HANCOCK.

Leader of the movement to erect a monument to William Procter, "the father of American pharmacy," being chairman of the committee appointed for that purpose.

the lists which follow, they fairly well indicate the scope of the National Formulary IV.

The articles below, now included in the book, have not been admitted to the new edition:

Acidum Hypophosphorosum.
 Balsamum Traumaticum.
 Bismuthi Oxidum Hydratum.
 Boroglycerinum.
 Ceratum Camphoræ Compositum.
 Decoctum Aloes Compositum.
 Dextrin Emulsion of Cod Liver Oil.
 Elixir Acidi Salicylici.
 Elixir Ammonii Valerianatis et Quinina.
 Elixir Apii Graveolentis Compositum.
 Elixir Caffeina.
 Elixir Chloroformi Compositum.
 Elixir Cinchonæ, Pepsini et Strychnina.
 Elixir Coca et Guarana.
 Elixir Eucalypti.
 Elixir Euphonia.
 Elixir Frangula.
 Elixir Glycyrrhizæ.
 Elixir Grindelia.
 Elixir Malti et Ferri.
 Elixir Paraldehydi.
 Elixir Pilocarpi.
 Elixir Quinina et Phosphatum Compositum.
 Elixir Rhei.
 Elixir Rhei et Magnesia Acetatis.
 Elixir Stillingia Compositum.
 Emplastum Picis Liquidæ Compositum.
 Emulsions of Volatile Oils.
 Emulsum Olei Terebinthinae Fortior.
 Extractum Glycyrrhizæ Depuratum.
 Ferri Hypophosphis.
 Fluidextractum Camellia.
 Fluidextractum Coffea Viridis.
 Fluidextractum Cornus Circinata.
 Fluidextractum Malti.
 Fluidextractum Menyanthis.

Fluidextractum Rhamni Purshiana Alkalium.
 Fluidextractum Urtica.
 Irish Moss Emulsion of Cod Liver Oil.
 Lac Humanisatum.
 Linimentum Iodi.
 Liquor Ammonii Acetatis Concentratum.
 Liquor Electropoeicus.
 Liquor Extracti Glycyrrhizæ.
 Liquor Iodi Causticus.
 Liquor Magnesii Bromidi.
 Liquor Morphina Citratis.
 Liquor Morphina Hypodermicus.
 Liquor Seriparus.
 Liquor Sodii Carbollatis.
 Liquor Sodii Oleatis.
 Lotio Adstringens.
 Mistura Acacia.
 Mistura Splanetica.
 Mucilago Dextrini.
 Mucilago Salep.
 Oleatum Zinci.
 Pasta Ichthyoli, Unna.
 Pepsinum Aromaticum.
 Pulvis Acacia Compositus.
 Pulvis Amygdala Compositus.
 Pulvis Anticatarhalis.
 Pulvis Iodoformi Compositus.
 Pulvis Pro Lacte Humanisato.
 Spiritus Aromaticus.
 Spiritus Curassao.
 Spiritus Ophthalmicus.
 Spiritus Saponatus.
 Spongia Compressa.
 Spongia Decolorata.
 Syrupus Ferri Arsenatis.
 Syrupus Morphina Compositus.
 Syrupus Morphina Sulphatis.
 Tinctura Aconiti, Fleming.
 Tinctura Antacida.
 Tinctura Tolutana Solubilis.
 Tinctura Vanillini Composita.
 Vinum Aurantii.
 Vinum Carnis, Ferri et Cinchonæ.
 Vinum Coca Aromaticum.
 Zinci Oleo-Stearas.

The following articles have been added:

Aromatic Castor Oil.
 Elixir of Almond, Compound.
 Elixir of Cardamom, Compound.
 Elixir of Formates.
 Elixir of Formates, Compound.
 Elixir of Glycyrrhiza, Aqueous.
 Elixir of Glycerophosphates, Compound.
 Elixir, Red.
 Elixir of Sodium Salicylate, Compound.
 Elixir of Three Bromides.
 Elixir of Vanillin, Compound.
 Extract of Ergot (Bonjean).
 Extract of Malt with Cod Liver Oil.
 Fluidextract of Baptisia.

Fluidextract of Chionanthus.
 Fluidextract of Cinchona, Aqueous.
 Fluidextract of Condurango.
 Fluidextract of Cocillan.
 Fluidextract of Dioscorea.
 Fluidextract of Drosera.
 Fluidextract of Echinacea.
 Fluidextract of Euphorbia Pili-lifera.
 Fluidextract of Helonia.
 Fluidextract of Cataria.
 Fluidextract of Senecio.
 Fluidextract of Trifolium.
 Fluidglycerates (General formula).
 Fluidglycerate of Glycyrrhiza.
 Fluidglycerate of Krameria.

Fluidglycerate of Cascara.
 Fluidglycerate of Cascara, Aromatic.
 Fluidglycerate of Rhubarb.
 Honey and Borax.
 Honey of Rose with Borax.
 Hypodermic Injection of Ergot.
 Inunction, Menthol.
 Inunction, Menthol, Compound.
 Milk of Bismuth.
 Paste, Lassar's Stronger Resorcinol.
 Petroxolin, Liquid.
 Petroxolin, Solid.
 Petroxolin, Camphorated Chloroform.
 Petroxolin, Cade.
 Petroxolin, Creosote.
 Petroxolin, Eucalyptol.
 Petroxolin, Guaiaccol.
 Petroxolin, Iodine.
 Petroxolin, Iodine, Diluted.
 Petroxolin, Iodoform.
 Petroxolin, Menthol.
 Petroxolin, Mercury.
 Petroxolin, Methyl Salicylate.
 Petroxolin, Naphthol.
 Petroxolin, Phenol.
 Petroxolin, Tar.
 Petroxolin, Salicylated.
 Petroxolin, Camphorated Phenol.
 Petroxolin, Sulphur.
 Petroxolin, Sulphur, Compound.
 Petroxolin, Venice Turpentine.
 Pills of Digitalis, Squill and Mercury (Niemeyer's Pills No. 1).
 Pills of Opium, Digitalis and Quinine (Niemeyer's Pills No. 2).
 Solution of Aluminum Acetate Crude (Burov's Solution).
 Solution of the Bromides of Gold, Arsenic and Mercury.
 Solution of Coal Tar.
 Solution of Hydrastine, Compound.
 Solution of Pepsin, Antiseptic.
 Solution of Sodium Chloride, Physiological.
 Spirit of Ammonia, Anisated.
 Spirit of Vanilla, Compound.
 Spray, Eucalyptol.
 Spray, Menthol.
 Spray, Menthol, Compound.
 Spray, Thymol.
 Syrup of Ammonium Hypophosphite.
 Syrup of Blackberry.
 Syrup of Figs and Senna, Compound.
 Syrup of Iodo-Tannin.
 Syrup of Quinine with Chocolate.
 Sterilization (General article).
 Tincture of Cactus Grandiflorus.
 Tincture of Caramel.
 Tincture of Cocculus Indicus.
 Tincture of Ergot, Ammoniated.
 Tincture of Larkspur.
 Tincture of Opium with Saffron.
 Tincture of Passion Flowers.
 Tincture of Pulsatilla.
 Tincture of Saw Palmetto and Santal.
 Water, Phenolated.

Those articles used in the formulas of the National Formulary, but not standardized by the Pharmacopoeia, will be defined and included in Part II of the new book.

The following articles at present in the Appendix have been retained and will be included in the body of the book:

Antimonium Sulphuratum.
 Charta Potassii Nitratis.
 Decoctum Sarsaparillæ Compositum.
 Emplastrum Picis Burgundicæ.
 Emplastrum Picis Cantharidatum.
 Emplastrum Resinæ.
 Extractum Aconiti.
 Extractum Cinchonæ.
 Extractum Jalapæ.
 Extractum Podophylli.
 Fluidextractum Asclepiadis.
 Fluidextractum Aspidospermatis.
 Fluidextractum Castaneæ.
 Fluidextractum Colchici Radicis.
 Fluidextractum Dulcamaræ.
 Fluidextractum Gossypii Radicis.
 Fluidextractum Rumicis.
 Fluidextractum Scoparii.
 Glyceritum Vitelli.
 Hydrargyri Subsulphas Flavus.
 Infusum Brayeræ.
 Infusum Cinchonæ.
 Linimentum Sinapis Compositum.
 Liquor Ferri Acetatis.
 Liquor Ferri Citratis.
 Liquor Ferri Nitratis.
 Liquor Gutta-Perchæ.
 Magnesii Citras Effervescens.
 Massa Copaibæ.
 Mistura Magnesiae et Asafetidae.
 Oleum Phosphoratum.
 Pepsinum Saccharatum.
 Pilulæ Aloes et Asafetidae.
 Pilulæ Antimonii Compositæ.
 Pilulæ Rhei.
 Potassa Cum Calce.
 Potassa Sulphurata.
 Pulvis Antimonialis.
 Spiritus Myrciæ.
 Spiritus Odoratus.
 Syrupus Allii.
 Syrupus Althææ.
 Tinctura Bryoniæ.
 Tinctura Croci.
 Tinctura Cubebæ.
 Tinctura Humuli.
 Tinctura Ignatiæ.
 Tinctura Rhei Dulcis.
 Tinctura Sumbul.
 Trochisci Menthæ Piperitæ.
 Unguentum Plumbi Iodidi.
 Unguentum Sulphuris Alkalinum.
 Vinum Colchici Radicis.

Much care has been taken to insure careful and thorough revision; formulas have been studied and revised by sub-committees appointed for the purpose. Other sub-committees have submitted new formulas and every proposed change or addition has been published in the Bulletin together with comments or criticisms. Finally, in the light of these comments, a special reviewing sub-committee has passed upon the proposed formulas, suggesting further changes where found necessary, and then, with the approval of the whole committee, submitting the formula for drafting into manuscript.

It has been possible, through the settling at the recent conference of many minor questions raised by the reviewing sub-committee, to now place in the hands of the manuscript sub-committee almost all formulas, and it is confidently expected that the National Formulary will be ready for the press before the close of the present year.

Respectfully submitted on behalf of the committee, all (eleven) present at this meeting concurring.

C. Lewis Diehl.

This report was received and referred to the committee on publication.

H. L. Taylor, for the committee on rules for editing, made a report in which he recommended that the minutes of the meetings of the American Conference of Pharmaceutical Faculties and of the National Association of Boards of Pharmacy be incorporated in the association's volume of Proceedings. On motion of T. F. Main, of New York, this report was referred to the council without recommendation.

W. B. Day, chairman, reported for the general committee on membership as follows:

REPORT OF THE GENERAL MEMBERSHIP COMMITTEE.

After the death of Prof. Hallberg, which was a great loss to the committee and necessitated some changes in the plans for the Bulletin, your chairman deemed it advisable to cut down the expense of the membership campaign as far as compatible with an earnest effort to secure members.

Accordingly, the campaign started in January, 1911, with an appropriation of but \$200 to cover expenses. Your committee has been able to keep within this appropriation, as shown by the following statement of expenses. (Statement attached.)

In order to avoid the expense of employing the full time of a stenographer for this work, recourse was had to form letters, which were printed and the names inserted with a typewriter to match the print. In all six of these form letters were mailed. The usual lists were obtained from members of the committee and effort was made to secure as large a number of members as possible from these lists.

Co-operating with Mr. England, the acting editor of the Bulletin, a strong effort was made to interest the pharmacists of the United States army. A list of nearly five hundred of these military pharmacists was secured and two form letters were sent to them, along with a copy of the May, 1911, Bulletin, containing a special appeal to the military pharmacists by Chairman Payne. Up to the present time nearly seventy of the military pharmacists have joined the association, and no doubt more will join.

Your committee earnestly hopes that the association will find it possible to make a vigorous effort in behalf of the pharmacists of the army—an effort that will improve their condition both as to rank and pay and will increase the efficiency of the hospital corps of the army as a whole.

It is recommended that the committee on status of pharmacists in the government service take up this matter without delay, bearing in mind the fact that whatever is done must be

MEMBERSHIP AS SHOWN IN THE PROCEEDINGS.

Year.	Total active membership, including life members.	Losses.	Life members.
1895	1558	128	
1896	1518	136	
1897	1425	214	
1898	1351	160	
1899	1272	137	106
1900	1237	138	
1901	1295	150	114
1902	1404	111	116
1903	1526	94	
1904	1620	125	
1905	1736	151	
1906	1894	183	
1907	2085	111	
1908	2107	277	
1909	2312	207	
1910	2423	244	141

EXPENSES OF THE MEMBERSHIP CAMPAIGN FOR 1911.

Appropriation Number 29.....	\$200.00
January 1st to August 1st, 1911 inclusive.	
John Mors Co., printing, stationery and application blanks.....	\$39.25
John Mors Co., form letters (6).....	24.46
Postage.....	50.60
Salary of stenographer.....	35.00
Express.....	1.00
	\$150.31

BALANCE OF 1910 CAMPAIGN.

Summary.	May, June and July, 1910, Expenses.	Itemized as follows:
May \$53.00	Stenographer, 12 weeks.....	\$120.00
June 55.00	Postage.....	40.00
July 37.05	Rent of typewriter.....	7.50
	Incidentals.....	1.05
Total \$168.55		Total \$168.55

done with the consent and co-operation of the surgeon-general of the army and along the lines approved by him, otherwise it will come to naught.

It will greatly facilitate work of the committee if the action of the council requiring the endorsement of the member of the membership committee from the State or district from which the candidate for admission comes, is modified. Where this member has sent to the chairman of the committee a list of eligible pharmacists of whose election he is willing to approve, such candidates ought to be accepted upon the endorsement of the chairman. This will avoid delay and trouble. Also it may happen occasionally that it is not possible to secure the endorsement of a member of the committee from the State or Territory whence the candidate comes, for there may be no committeeman from that State or Territory. We have enrolled several members from the Philippine Islands, for example, and it was obviously impossible to secure the endorsement of a member of the committee in that district for this reason.

With the publication of the larger Bulletin it will be greatly to the advantage of the association to have the work of the general membership committee conducted from the office of the Bulletin, and if this is done larger discretionary powers might well be granted to the chairman of this committee.

An interesting feature of the membership campaign was the action of the council in sending Mr. Ralph Gable into the field to personally solicit members with the co-operation of the officers of the association. In Massachusetts Mr. Gable secured quite a number of new members, but the expense was rather high and it was thought best not to continue the campaign in this direction until a more favorable time.

The activities of the New England members have resulted

in a very large accession to our membership from this section. President Eberle has brought in a great many Texas members, and the efforts of Prof. Remington and Prof. Alacan have resulted very successfully in bringing into the association a considerable number of Cuban pharmacists. The various State association meetings have also been productive, notably in South Dakota, Maryland and Nebraska. Taken in all, the membership is growing in a fairly satisfactory manner.

The secretary of the council reports a number of members elected since the Richmond meeting. The secretary of the association, no doubt, can give us the exact membership at the present time.

As reported in the last Proceedings the membership was 2423, including 141 life members, but excluding the honorary members. The growth of the membership for the past sixteen years gives evidence that the association has passed a critical point in its history and that a steady increase in members may be looked for from now on. The lowest point was reached in 1900 when the Proceedings shows but 1237 members, thus indicating that within the last twelve years the membership has been doubled. This surely does not look like "the sick A. Ph. A." that we heard about last winter.

With the prospect of a greater Bulletin and a thoroughly organized effort to interest the pharmacists throughout the country as well as in Canada, Mexico, Cuba and the West Indies, great strides forward should be assured.

Your chairman desires to take this opportunity to thank the members of the committee who have seconded his efforts so effectively, as well as the acting editor of the Bulletin, who has faithfully co-operated in the good work and is deserving of much credit therefor.

W. B. Day,
Chairman.

Chicago, August 11th, 1911

On motion of Mr. Whelpley, the thanks of the association were tendered to Mr. Day for his excellent results achieved at a small expense.

The session then adjourned.

SECTION ON COMMERCIAL INTERESTS.

Tuesday Afternoon, August 15th.

On account of the regrettable and unavoidable absence of Chairman F. M. Apple, who had been called from Boston to his home at Philadelphia, Associate E. Berger, of Tampa, presided over the deliberations of the commercial section, calling its first session to order in the large meeting room, Tuesday afternoon. Secretary B. E. Pritchard, of Pittsburgh, was present and officiated. The chairman's address was read by Mr. Berger.

SUNDAY CLOSING.

Sunday closing was the first topic for discussion and brought forth many recitations of facts and expressions of opinion.



F. M. APPLE.

Called from the meeting before the opening session of the Section on Commercial Interests, of which he was Chairman.



E. BERGER.

The new Chairman of the Section on Commercial Interests. Very active in Board Association matters.

The way to close on Sunday, believed C. B. Lowe, of Philadelphia, was to close, regardless of whether others agree to do so or not. He had followed the plan and found that while he might lose many sales on Sunday, in the year's business he lost nothing, and gained much rest and self-respect.

F. H. Carter, of Indianapolis, had observed that many Sunday sales in drug stores were of articles which were ordinarily kept in grocery stores and were bought in the grocery stores during the week.

H. M. Whelpley, of St. Louis, said that when he was a drug clerk his hours were from 1 to 5—that is, from 1 A. M., when the store was closed, to 5 A. M., when it was opened again. He did not aver that these were the exact

hours every day, but only approximate. He thought each druggist should act on his own initiative in the matter of closing, without waiting for general action.

F. E. Stewart, of Philadelphia, had tried Sunday closing and had found that it paid.

J. B. Bond, Sr., of Little Rock, had observed that keeping open on Sunday was the result of avarice on the part of the man who did it. Soda water was sold on Sunday simply to make money for the seller—nothing more.

Charles Holzhauer, of Newark, had been in business continuously since 1853; had never kept open on Sunday and never would. If he could not make a living in the drug business by working six days in the week, as other men did, he would quit it. A friend of his in the drug business had told him that he was making a great mistake by closing on the best day of the week for business. The friend had died a bankrupt. He knew that he could do a big business on the Sabbath, but believed that proprietors as well as clerks were entitled to their day of rest. He found that he could keep a better class of clerks by closing one day in the week, and his standing in the community was higher. He opened for filling prescriptions two hours twice a day on Sundays, just to show his customers that he was not indifferent to their needs. There was compensation somehow along the line for the man who refused to commercialize the Lord's day.

H. P. Hynson, of Baltimore, saw three sides to the Sunday-closing question, the moral, the humanitarian, and the business. Times had changed, and there was less reason for keeping drug stores open on Sunday now than formerly.

H. D. Kniseley, of Checotah, Okla., never kept open all day on the Sabbath during the twenty-two years of his ownership of a drug store. He had kept one clerk ten years.

F. E. Stewart read a paper on patents as applied to medicinal preparations, which led C. B. Lowe to refer to the difference in the price and in the way a patented drug is advertised to physicians before and after the expiration of its patent. A general discussion of the patent law ensued, in which Mr. Stewart stated that many of the claims made by patentees of medicinal preparations would not hold good if tested by the law, being purely "bluff."

B. E. Pritchard, of Pittsburgh, read a paper, which is here given in full:

Business Hints from the Department Stores.

BY B. E. PRITCHARD.

"Do men gather grapes of thorns, or figs of thistles?" Most assuredly they do not. Neither do men gather success of slipshod, careless business methods.

No business that is not wisely planned and thoughtfully carried along upon systematic lines can ever grow big enough to attract attention. We are urged not to despise the day of small things, and men in business life should likewise cultivate the habit of refraining from speaking disparagingly, judging evilly, the ways of large concerns that have grown big because of the care and attention the men at the top have given to little things in a large way.

The question is frequently propounded in a peevish manner, "What is the matter with the drug business, any way?" The only correct reply is, "Nothing that is not the matter with any and every other line of business."

What prompts this query? The condition in which the querist finds himself when he has seen other men outstrip him in the building up of a big, flourishing mercantile establishment, directly under his eyes, and in the same field where he himself has proven a failure.

In every such instance careful, analytical investigation into reasons will reveal the truth, that it has been due to faults in the man who failed that were avoided by the man who succeeded. The failure simply eliminated himself from the game by ignoring its rules.

Using our own calling merely because it comes closer home to us, it can be repeated and emphasized: There is nothing whatever wrong with the drug business.

That there are numerous things wrong with a good many men who are druggists, however, cannot be so easily disposed of, or so effectually dismissed from our calm consideration.

There are great educational institutions in this country that have been founded and are being carried on for the one purpose of teaching men the science of business-building. Mr. Sheldon, who is a leading apostle of this gospel, says: "Let us begin our consideration of this theme by an analysis—science, every practical American

citizen has defined as classified common sense." Business-building Mr. Sheldon defines to be the art of procuring permanent and profitable patronage. Thus he declares, "Success, commercially, hinges upon the power to make permanent and profitable patrons, and this is true no matter what line of business one is engaged in."

We have now arrived at that point in this paper where the roads diverge, some leading to success, others to failure on the business highway. The sign-boards point accurately enough—no man need err therein—but the roadways are not equally inviting; hence some travelers disregard the signs and jump the fences in a resolve to reach the goal by a cross-cut—and never get anywhere. Others, with only a single eye looking to success, keep on the right road, climb over the obstacles, disregard the handicaps, patiently moving on day after day, and in the end become business barons, while those who would not consent to bear the burdens for a time, but chose rather to shirkingly skip across lots, refer to them as "lucky fellows," oftentimes adding the gratuitous information that they, too, could have "got there" if they had not been so honest in their dealings, and thus hint at questionable methods practiced by the successful one.

There may be, possibly there are, some methods employed by those who carry on big enterprises that may not be thoroughly in accord with our ideas of the eternal fitness of things; but are we ourselves so utterly free from the commission of unwise acts, so entirely void of all ugly characteristics in our make-up, that we would make acceptable patterns for the Almighty One to mould all men in our image?

I have known druggists who after being careful to make a quotation on the price of a prescription ten cents below the indicated figure, as expressed by the N. A. R. D. symbols placed thereon by his neighbor, to proceed to anathematize the big down-town department store for demoralizing prices. It all brings to mind the story of the old-time store-keeper who upon a sharp cold morning called to his apprentice boy: "John, have you sanded the sugar?" "Yes, sir." "Watered the vinegar?" "Yes, sir." "Chicoried the coffee?" "Yes, sir." "Well, John, you can now put another dollar on the price of a ton o' coal, and then hurry in to family prayers. God help the poor on a cold day like this."

Enough now, for the purpose of exordium; let us get down to the root of the matter in hand. I do not intend that this paper shall deal with men's weaknesses; my purpose is to endeavor to call attention to some lessons that can be learned from a study of some of the big store methods of conducting business.

An instructor in one of our schools of pharmacy not long ago was talking to me of a young drug clerk who was seeking employment. Among other things he said: "He was employed by the Blank Drug Company, but quit there because he was held down to so many red tape rules." And he added sneeringly: "Those people are awfully small."

"No," I corrected him, "the trouble does not lie in that direction. That store is conducted systematically and according to certain clearly defined rules, and each employe is expected to abide by them. This young man has, unfortunately, been accustomed to working in drug stores that are run on the hit-or-miss plan, and when he is subjected to properly systematized business methods he rebels, that's all."

It has been my good fortune to be on terms of good fellowship with at least one set of men who conduct a very large retail drug business, and I have been permitted to gain much insight into their methods; and as they are the methods employed in all properly conducted retail business firms, they will well repay mentioning in this paper which will be read by thousands of druggists all over this great country, as well as other countries, and may, I sincerely trust, bear much good fruit.

Each employe upon entering or leaving the store must record the fact by the use of a time clock that has been installed for that purpose.

Every employe who sells goods must make a record of each sale and hand it to the cashier who deposits it in its proper place, so that every day the sales manager has accurate knowledge of what every salesperson has done during that day; and thus the exact value of each employe to his employer is known. When conditions arise that necessitates a reduction of the working force the manager knows just who should go and who should be

retained, and, again, these records are ready of access when promotion is to be made.

Not one penny's worth of merchandise is permitted to pass over the counter without its price in full has found a place in the cash register. This rule applies all down the line from proprietor to humblest employe. I have been invited at times to be the guest of the proprietor at his own soda fountain, and invariably he has paid the check handed to him by the dispenser, just as every other customer did. I have been with the proprietor when he has stepped up to his own cigar case for cigars. He was treated by the clerk exactly as though he were a complete stranger—paid for what he received.

Is there one proprietor of a drug store listening to this reading who can truthfully say, "None of these things move me?" Does this careful attention to small things mean much or little, when weighed in the balance, between success and failure? I have known proprietors who have made it a rule when engaging new clerks to inquire closely into the habits of the applicant, and if he was not a smoker that fact added an appreciable sum in the appraisal of his value as an employe.

The firm under consideration always has a thorough and complete understanding with each employe concerning hours of service, and this is kept inviolate. Once each week employes are given a full two hours' freedom from the store, in addition to whatever arrangements are entered into covering Sunday service. The employing manager assures me that his experience has convinced him that a continuous grind weakens any man's hold upon business.

A peculiar feature about the conduct of a large retail business is the fact that neither the proprietor nor any of the men near the top in the management of the business have any personal acquaintance with the store's patrons. The business is kept moving along in a manner similar to that of a general in command of a large army. This proves conclusively that it is not essential for the proprietor of a successful store to come into personal contact with his clientele. In fact, a large and successful business can not be built up upon such a hypothesis. A business the continued success of which is contingent upon the personality of one man constitutes a very unsatisfactory asset. Such a business when thrown upon the market for any cause can not, in the very nature of things, command a high selling value. You can not transfer your personality to another. The moral is self evident. Do not nurse your customers by being always in evidence every time they enter your store. Get out. See things. Learn other men's methods. Teach your employes to treat your trade in such a satisfactory manner, whether you are present or not, that they will bind their patronage to that store with bands of steel. It does not make a ripple in the onward movement of trade in the big store whether the proprietor is at home or abroad, and, in fact, 90 per cent. of the store's patrons do not know who is the owner.

To my mind, and I have preached this doctrine before, it belittles a man in the eyes of thinking people to be always found sitting closely upon one egg. It broadens a man in his customers' esteem if at times his employes can say to those who seek the proprietor, "Mr. Blank is not here to-day, his other interests demand his attention for a time." Can't you see how that proprietor will at once be seen through different eyes? He is not only the little druggist on the corner; he has outside interests that claim him beside this one small holding. Do you catch my meaning?

Another feature in connection with the conduct of a large store that, to my mind, is worthy of consideration, is the fact that the selling end is not paramount in organizing for action. The men who are in business to make money in a large way in retail merchandising give but little thought to the organization of their selling force. That detail is left to the care of a general sales manager who is held to a strict accountability for the output. As a matter of fact there are persons in the employ of some large retail establishments who do not even know the owner or owners by sight. The high salaried, valuable men whose duties are the obtaining of supplies at right prices, whose business it is to know best sources of supply, are the men who stand nearest the throne. Salespeople are always to be found lying in wait; they can be picked up in a minute or two, and at small pay; but with buyers conditions are vastly different. A reliable man with proper knowledge of the line of merchan-

dise seeking his services can always command a salary, and is seldom found offering his services; he is sought for far and wide—his value to employers is a known quantity.

The public knows its wants, and a very mediocre person can hand over the commodity asked for, but the ability to provide for this demand satisfactorily, both in quality and price in such a manner as to never disappoint purchasers, is found in but rare instances, and when found is liberally rewarded. Hence the buying of merchandise aright is the thought always uppermost; the selling end takes care of itself.

In the arranging of a department store on a big scale every foot of space is expected to pay a profit. Rent, light, heat and every expense properly chargeable is set down against each foot of space, and these must all be paid for and a profit shown. If one line of merchandise is found to be occupying more space than its earnings justify, it is at once shortened to fit into its earning capacity. I once called the attention of the manager of a very large retail drug store to the fact that his soda-water department was apparently inadequate, for there were as many patrons standing around awaiting service as were being served. "No," he said, "that department is crowded for but an hour or two each day. At other hours it is quite adequate to the demands. It is now occupying as much space as its earnings justify. The question is elimination." How many proprietors of drug stores are there here listening to this reading who have so close an insight into their soda water departments, or, in fact, any single department of their store?

I one day ran into the head of a retail drug merchandising concern that is doing an annual average business of approximately half a million dollars. In his hand he carried an account book with which he was moving about the establishment making notes. "Why," I exclaimed, "you seem to be working. I thought you had passed all that sort of thing along to others." "Not all of it," he said, "this one thing I have reserved for myself." Thereupon he showed me the nature of the entries in his book. These consisted of the date of each day in the year, together with temperature and other weather conditions, followed by a statement of the day's sales in each department. "Now," he said, "I have similar entries for every day of this store's business life. I take this day's exhibit and carefully compare it with the corresponding date of one year ago. If I find that weather conditions, etc., are practically the same, and yet any department has failed to measure up to or beyond the volume of business done, I immediately call upon the manager of that department for a reason why, all things else being equal, his sales have fallen down. This enables us to learn where the weakness lies, and we proceed at once to repair the trouble. Business must increase, not decrease each year; we cannot afford to stand still, much less go back."

Does that man stand very greatly in need of a course in the science of business building, think you?

With these few inside views of how big retail stores are carried on, look over the history of your store; compare these systematic methods of taking care of business with your methods. Do yours measure up to the needs of a healthy continuous growth of permanent, profitable patronage?

Are you using science in the manner in which it is defined earlier in this paper, viz., as "classified common sense" in your business building? Without doubt there are many men engaged in the merchandising of drugs who do use every means at their command to make their stores successful, but they are not to be found among those who are dolefully propounding the question, "What is the matter with the drug business, any way?"

F. E. Stewart characterized Mr. Pritchard's contribution as a valuable paper, but as other papers were to be read and the time was short, no extensive discussion of it was indulged in.

The next paper, in the absence of its author, was read by J. W. England. It follows:

Factors to be Taken into Consideration in the Extension of Credit.

By C. MAHLON KLINE.

Credit is the backbone of modern business. With it, a man can command more capital, do more business and make more profit. The advantages of credit, or rather its

possibilities, when properly used, are so generally recognized in the business world, that it has often been a question in the mind of the writer why more retail druggists did not avail themselves of it, especially in the direction of obtaining loans to discount bills, by which they could obtain a much larger rate of interest on their money than the rate charged for the loan.

Generally speaking, there are three factors to be considered in the extension of credit; capital, capacity and character. To the student of credit conditions this statement is elementary, but to those of you who have not made credit a special study, it may be of interest to explain the relative importance of these factors. Credit may be extended on the strength of the existence of any of them, but in no case can it be extended where all three are absent.

You may not be aware of the fact, but capital alone, regardless of character and capacity, entitles the possessor to credit in reasonable amounts. A man notoriously dishonest, and of no ability, provided he has a clear title to valuable property, can secure credit more easily than a man without capital and of admittedly good character. The reason for this is, of course, obvious. The laws of the country are so drawn that the creditors run a better chance of securing their money, if necessary, where capital is in existence, than they do where the ability to earn capital may be present, but which remains to be demonstrated. For this reason we very often see the example of a man without capital obeying moral laws and conducting himself in a decent Christian way, simply and solely because he realizes that in the absence of capital he must demonstrate character. Very often this same man, after his career has been crowned with wealth, will forsake utterly the principles that have guided his steps, and will attempt to defy moral laws and put aside Christian virtues, because he vainly imagines that his wealth places him beyond the control of the laws of God and man; and indeed, we are daily accustomed in these modern days to the spectacle of such a man continuing to live as he sees fit without the loss of either commercial power or wealth.

To turn to the second factor, that of capacity; capacity without capital, but with character, is an exceedingly important consideration in the retail drug business. The business is of such a nature that not very much capital is required, and if a man whose capacity is known, and whose character is above reproach, comes to a supply house the credit extended to him is often surprisingly large. On the other hand, capacity without character or without capital may be of value when properly controlled, but it is very seldom that a man of this kind meets with any measure of business success. Credit men have a little habit of inquiring into the character of the individual, and where wine, women and song are indicated, the individual receives scant consideration. I have known credit to be refused on immorality alone, simply because it is well known that immorality quickly undermines character and leads to financial downfall.

One of the misfortunes of the retail drug business in the past has been the fact that retail druggists knew little or nothing of the economic principles of the business world, and tried to do business by ignoring them. Today, under the leadership of the national pharmaceutical organizations, this condition is being rapidly changed. Furthermore, the colleges of pharmacy are seeing the signs of the times, and are giving special courses of commercial training to their students, a practice which cannot fail to make good business men as well as good professional men.

An able credit man has to take chances. He has to trust often largely to instinct, and is, of course, often sadly misled. It is very necessary, however, that he take risks, or else he will not be making the best of the possibilities of his position. The credit man who has no losses is not a good credit man; it means that he is losing more business than he should. In modern business, losses up to a certain point are considered perfectly legitimate. If the labors of a credit man selling as he does in the territory within a radius of some hundred miles, are trying, how much more trying must they be to those who sell in foreign lands, more particularly those lands which are constantly in the turmoil of political upheaval, where a man may be a millionaire one day and a beggar the next. Those who sell goods in South American countries are particularly exposed to this sort of risk. Often a shipment is started to a man having the best of credit, and

while the shipment is on the way this man's capital and belongings are wiped out of existence and his bills remain unpaid.

It seems peculiar, but nevertheless it is a fact, that when once financial institutions form the habit of extending credit to an individual or company it is easier for such to continue borrowing than it would be had they never before asked for such an accommodation. To illustrate my point: I quote a peculiar case that came to my attention of a man conducting a business that had so much capital and the earnings of which were so large that they were never accustomed to ask for loans of any kind, but paid dividends and discounted all bills with cash at the banks. This man found that he could use \$10,000 to advantage, and went to one of the banks where he had maintained a cash deposit for years, and asked for a loan. The bank immediately began to ask him questions which made him so angry that he advised them to depart for a certain place where the climate is said to be hot, and went to another bank, where he was accustomed to keep, also, a considerable cash deposit. This bank treated him no better than the first, which so annoyed him that he decided to go no further.

Where banks are accustomed to extend credit they will frequently loan large amounts on short notice. Where a company has existed for years without borrowing, any attempt to borrow immediately arouses suspicion. It is, therefore, undoubtedly good practice for a man, or company, to borrow money, from time to time, just to get the financial community accustomed to loaning to him.

The factor most considered by banks in the extension of credit are the quick assets. Quick assets consist of stocks which have a fixed market value and can be disposed of at short notice, accounts receivable which are due from customers in good standing, and, of course, cash on hand in the bank. Many other assets which might be considered excellent cannot be taken into account, because they are of such a character that should the bank come into possession of these it might take considerable time and expense before they could be converted into cash.

In order that it might be considered in connection with Mr. Kline's paper, the next one was read by Mr. Saalbach before any discussion of the preceding one was called for. Its author was not at the meeting:

The Druggist's Strongest Asset—Credit.

By JOHN R. THOMPSON.

You might have \$25,000 in the bank and still not be considered a desirable customer of merchants and manufacturers. On the other hand, your bank balance may be very small and cause you no embarrassment if you are prompt in paying your bills. A strong credit is built up by the method you employ in making settlement and not by a strong showing in assets.

A bank will lend money and a merchant will give credit more readily to the druggist who has a reputation for

Good credit is more to be desired as it is more useful to the business man than lots of prosperity.

The firm who sells you goods is not interested in what you are worth, particularly, but they are alive indeed to whether you do not pay when your bills are due.

The proportion of druggists who discount their bills is larger than one would suppose at first thought. It varies in different localities like everything else. In Pittsburgh about 80 per cent. of druggists discount; in Philadelphia about 60 per cent.; in New York 60 per cent.; in Boston 80 per cent.; in Baltimore 50 per cent.; in Chicago and most Western cities about 75 per cent. Cleveland and Cincinnati both in the same State vary from 80 per cent. in the former city, to 65 per cent. in the latter.

These estimates apply only to city druggists. In the country districts the proportion is larger in the West and smaller in the East.

Taken as a general average we will say about 70 per cent. of druggists discount promptly. This a good showing compared with other business of comparative size. Grocers and other merchants do not discount in any such proportion. Department stores with scarcely an exception discount all bills.

The merchants in all lines who discount are the ones who are making money. Those who do not are the ones who simply exist or fail.

This is easily accounted for; the man who is prompt in payment is also prompt and forethoughtful in all his actions. He is a good buyer and will not overstock. He is a good salesman and will get rid of goods somehow which have ceased to be good sellers; he is a good manager and will not allow extravagance and negligence to escape notice. He is a good business man all around because he discounts. He discounts because he is a good business man.

The direct profits to be made by discounting aside from establishing credit are large in themselves.

A druggist purchasing \$10,000 worth of goods a year will realize a hundred dollars if cash discounts are only one per cent. and in many cases they are two and three per cent. To clean up a hundred dollars net by selling goods you must sell about a thousand dollars worth of merchandise.

The advantages of discounting, therefore are: the direct profit in it, the building of credit and the acquisition of good business habits. These three qualities will make a business a success anywhere in the world.

Thomas F. Main thought the drug business was to be congratulated upon the large proportion of its members who discounted their bills; it showed prosperity.

OLONIUS REVERSED.

Charles Holzhauer had found that it paid to borrow money. "Borrow," he said; "discount, pay back, and borrow some more."

A. W. Miller, of Philadelphia, agreed that borrowing was a good thing, and H. B. Mason observed that druggists did not use the banks enough. The way to make money, he had found, was to borrow at 5 per cent. and make the borrowed capital earn 15 per cent.

S. H. Scallin, of Mitchell, S. D., believed that some borrowers resented the inquiries made of them by the banks. It was the business of banks to know what was to be done with the money borrowed, as it was money held in trust for depositors and the banks were obliged to be careful with it.

CO-OPERATIVE INDUSTRIES.

Associate C. M. Ford took the chair while Mr. Berger presented a paper on co-operative cigar manufacturing which had been prepared at the request of Chairman Apple. In this paper he told of the advantages of Tampa as a cigar manufacturing center, and the money that had been made in the business there.

Frank H. Freerichs, of Cincinnati, was a believer in co-operation effort, and would like to see Mr. Berger encouraged.

"Personality in Pharmacy" is the title of a paper presented by P. Henry Utech, of Meadville, Pa.

Other papers on the program, not all of which could be read on account of lack of time, were:

"A Neglected Asset," by J. J. Bridgeman, of Philadelphia.

"Simplified, Accurate Methods of Recording Charge Sales," by Ambrose Hunsberger, of Philadelphia.



ELIE H. LAPIERE.

One of the local men who did much to help entertain the speaker of the Association, men visitors, while his wife whose eloquence takes the and daughter were similarly body to Denver next year; second engaged with the women.



CHARLES M. FORD.

Champion three - minute Vice-President.

prompt payment even though he may be only moderately rated, than to the man of reputed wealth who is slow to liquidate.

"Principles and Practice of Bookkeeping," by H. P. Hynson, of Baltimore.

"The Cost of Conducting the Drug Business," by E. Fulderton Cook, of Philadelphia.

"Pharmaceutical Window Displays," by Otto Raubenhimer, of Brooklyn.

"The Advantages of Maintaining a Luncheon Room for Employees of Pharmaceutical Manufacturing Establishments," by W. A. Pearson, of Philadelphia.

"The Drug Store Crisis," by C. M. Ford, of Denver.

"Some Everyday Problems," by C. B. Lowe, of Philadelphia.

Officers elected as set forth on page 492, were installed, after which the section adjourned.

SECTION ON EDUCATION AND LEGISLATION.

First Session, Wednesday Forenoon, August 16th.

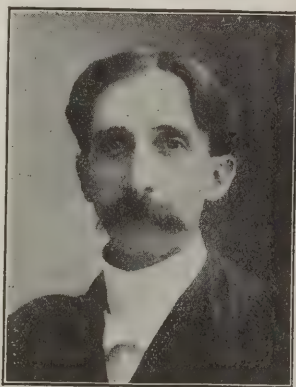
After calling to order the first session of the section on pharmaceutical education and legislation Wednesday at 10 A. M., Chairman C. W. Johnson, of Seattle, Wash., called upon Associate Philip Asher, of New Orleans, to preside while he read his address.

Two things strongly urged by the chairman were (1) a more thorough and practical curriculum for schools of pharmacy, including drug store practices, even advertising, window dressing, and making soda water, if need be, and (2) the making more nearly uniform of pharmacy



CHARLES W. JOHNSON.

Retiring Second Vice-President; Retiring Chairman of the Section on Education and Legislation.



WILBUR J. TEETERS.

Re-elected Secretary of the Section on Education and Legislation.

laws. Pharmacy, he said, was the same in all States, and asked why the laws which govern its practice should be so widely different. The "prerequisite" idea, he noted, would not down, and a model "prerequisite" law was desirable.

This address was referred to a committee of three, consisting of H. P. Hynson, W. C. Anderson and H. L. Taylor, with instructions to report portions of it to the conference of faculties and other portions to the association of boards.

Thomas P. Cook called the attention of the section to the fact that President Seth Low, of the National Civic Federation had appointed a committee of members of the American Pharmaceutical Association to help bring about an improvement in the quality of food and drugs sold in this country. (See the CIRCULAR for last month, page 440.) The committee consists of E. G. Eberle, H. H. Rusby, C. F. Chandler, Thomas P. Cook, and Thomas F. Main.

Secretary W. J. Teeters, of Iowa City, submitted his report for the year. It is here given in full:

REPORT OF THE SECRETARY OF THE SECTION ON PHARMACEUTICAL EDUCATION AND LEGISLATION.

The annual reports of the secretary of this section are, in effect, a running account of the nation's progress in education and legislation in pharmacy and should, at least, show two things: first, the trend of legislation, and second, the advance in education in pharmacy.

In legislative matters the pharmacists themselves must meet the responsibility placed upon them by a protected profession, or expect measures to be introduced which are inimical to their interests and the best interests of the public. Legislative committees from the State associations are, as a rule, on the defensive. They should be on the firing line. Too few pharmacists take an active part in politics, and

our weakness in organization has been many times demonstrated when important measures were pending in the various legislatures. Every county should have its organization, and every pharmacist should belong to his county, State, and the national associations. No man should be allowed to join the national association until he had joined his State association, and membership in his county association should be required before he could become a member of the State association. With such an organization the absurd bills, even if introduced, would never become laws. Such a scheme of organization is not visionary, but on the contrary, is logical and practicable, and is, I believe, the only solution by which some of the perplexing problems can be successfully met.

The legislatures in the following States did not meet this last year: Arizona, Kentucky, New Mexico, and Virginia.

In the following States no changes in the pharmacy laws were made, although in a number of the States bills were introduced but failed to pass: Alabama, Arkansas, District of Columbia, Florida, Georgia, Idaho, Kansas, Delaware, Louisiana, Maryland, Massachusetts, Maine, Nevada, New Jersey, New Hampshire, Nebraska, Rhode Island, South Carolina, South Dakota, Oregon, Texas, and Wyoming.

Pre-requisite bills failed in Illinois, California, and Washington.

State Laws and Bills.

California: A new poison law was adopted which includes the following peculiar features:

It shall be the duty of the State board of pharmacy to adopt a schedule of what in their judgment are the most suitable common antidotes for the various poisons usually sold. The particular antidote adopted (and no other) shall appear on the poison label provided for in section 2 of this act, or be attached to the package containing said poison. The vendor of said poison may enter the same in any foreign language he may desire, in addition to the said entry and label in English.

When in the opinion of the State board of pharmacy, it is in the interest of the public health, they are hereby empowered to further restrict, or prohibit the retail sale of any poison by rules, not inconsistent with the provisions of this act, by them to be adopted, and which rules must be applicable to all persons alike.

The possession of pipes used for smoking opium (commonly known as opium pipes) and the usual attachments thereto is hereby made a misdemeanor and upon conviction thereof shall be punishable by the penalties prescribed in section 7 of this code.

All narcotic drugs specified in section 8 and also all pipes used for smoking opium (commonly known as opium pipes) and the usual attachments thereto, seized under the provisions of this act shall be ordered destroyed by the judge of the court in which final conviction was had; said order of destruction shall contain the name of the party charged with the duty of destruction as herein required.

The sale of carbolic acid in quantities less than one pound is prohibited unless upon the prescription of a physician, but this prohibition does not apply to solutions of carbolic acid containing not over 10 per cent. of carbolic acid and not less than 10 per cent. of ethyl alcohol.

The penalties for violation of the narcotic sections of the act are as follows: First offense, fine \$100 to \$250 or imprisonment not more than 100 days; second offense, fine \$250 to \$500 or imprisonment not more than 200 days; third offense, imprisonment from one to five years. It will be noted that for the third offense no fine is provided, but only imprisonment for a period about the same as usually applied in cases of second or third degree murder.

The penalty for violation of other sections of the act are fine \$30 to \$100 or imprisonment for not more than 50 days.

An amendment to the criminal code of the State provides that any one addicted to the intemperate use of narcotics may be confined in the State Hospital for the Insane for treatment upon the order of a judge after trial. Any one may cause the trial by making affidavit as to the accused condition.

Colorado: The following cocaine law was passed and approved May 30th, 1911.

Section 1. It shall be unlawful for any person to sell or offer for sale, give away, or offer to give away, buy or offer to buy, receive or offer to receive, any cocaine or its salts, alpha or beta eucaine or their salts, or any compound mixture or solution or other product whatsoever of which cocaine or any of its salts, or alpha or beta eucaine or any of their salts is a constituent or ingredient, except as hereinafter provided.

Section 2. Any registered pharmacist or pharmacist (?) may dispense any drug, compound mixture or solution or other product mentioned in section 1 of this act, upon a written prescription of a duly registered physician, veterinary surgeon or dentist, which prescription shall be retained in the pharmacy, drug store, dispensary, or sanatorium or hospital in which the same was dispensed by the proprietor or manager thereof; said prescription shall be filled but once and no copy of it shall be taken by or furnished to any person except the same be required for the enforcement of this act.

Section 3. Any manufacturer, any wholesale druggist, any retail druggist, actively engaged in business may sell any item mentioned in section 1 of this act to any such manufacturer, wholesale druggist, registered pharmacist actively engaged in business, to any duly registered physician, veterinarian, or dentist, duly authorized hospitals, dispensaries, sanatoria, provided that before delivering same they shall make or cause to be made in a book kept exclusively for that purpose an entry of the sale, the name of purchaser, date of sale, the quantity, name of article sold and name of person by whom sale is made; said

book shall always be open for inspection at reasonable time to any member of the State board of pharmacy, State board of health, food and drug commissioner, or any inspector of food and drug commissioner or State board of pharmacy; said book shall be preserved for five years after last entry was made.

Section 4. It shall be unlawful for any physician, veterinarian, or dentist to furnish to any person any cocaine or its salts, alpha or beta eucaine or their salts or any compound, mixture or solution, or other product whatsoever of which cocaine or any of its salts, or alpha- or beta-eucaine or any of their salts is a constituent or ingredient except in such quantity as may be necessarily employed upon the patient at a time or place of treatment, provided that before administering same they shall make or cause to be made in a book exclusively for that purpose, an entry of the name of patient, date of treatment, the quantity, name of article used and name of person by whom the treatment was administered; said book shall always be open for inspection at reasonable time to any member of the State board of pharmacy, State board of health, food and drug commissioner or any inspector of food and drug commissioner or State board of pharmacy; said book shall be preserved for five years after the last entry was made therein.

Section 5. Any person violating any of the provisions of this act shall be guilty of misdemeanor and upon conviction shall be fined not less than two hundred (\$200) dollars, nor more than three hundred and fifty (\$350) dollars or by imprisonment in the county jail for a period not more than six months or by both such fine and imprisonment in the discretion of the court.

An act entitled, "An Act to prohibit druggists, drug clerks, and proprietors of drug stores from selling cocaine without a prescription from a surgeon or physician," approved March 31st, 1897, and all acts and parts of acts in conflict herewith are hereby repealed.

Approved May 30th, 1911.

Connecticut: Several proposed changes in pharmacy law, but no definite action taken to date.

Illinois: Registration fee raised from \$5 to \$10. Secretary of board's salary raised from \$2500 to \$3000. The per diem of the members of the board raised from \$5 to \$8. Under the present law a registered pharmacist who takes into his employ an apprentice for the purpose of becoming a pharmacist is "required" to "at once" apply to the board of pharmacy for the registration of such apprentice. The new law strikes out the word "required" and inserts the word "instructs." It also eliminates the words "at once." The following important provision in regard to prescriptions is incorporated in the law:

Every proprietor or manager of a drug store or pharmacy shall keep in his place of business a suitable book or file, in which shall be preserved for a period of not less than five years, the original of every prescription compounded or dispensed at such store or pharmacy, numbering, dating, and filing them in the order in which they were compounded, and shall produce the same in court or before any grand jury whenever thereto lawfully required. Said book or file of original prescriptions shall at all times be open for inspection by duly authorized officers of the law.

Indiana: Law passed giving the board of pharmacy power to revoke certificates for cause; also the granting of locality permits; and registration of apprentices. A law was also enacted which prohibits under suitable penalty the sale of drugs and medicines by unregistered dealers within two miles of a drug store.

Iowa: The following laws were passed in Iowa.

A law permitting reciprocity in certificates of registration.

A law specifying duties of secretary and limiting number of examinations to five during the year, and requiring that all be held at Des Moines except one, which may be held at Iowa City.

A law passed permitting sale by any one of certain insecticides and fungicides.

A law passed permitting the sale on prescriptions of cocaine, ergot, and so forth.

The pure drug act was amended by making appropriation for purchasing samples and providing that the chemist of the food department shall do analytical work necessary.

Liquor law was amended under which wholesale druggists may sell to physicians and also allowing permit holders to fill out request blank before signature of purchaser.

Michigan: A bill passed in the dying hours of the legislature said to have been introduced under an euphonious name and passed without reading, as follows: "That all poisons in schedules A and B must hereafter be sold by retailers and wholesalers only, in bottles having corks provided with a 'wood, celluloid, glass, or metal disc, with serrated edge.' Violations are punishable by fine ranging from \$90 to \$300 or imprisonment between three months and a year or both.

Minnesota: A new pharmacy law was introduced but failed of passage. Three bills were introduced covering the pure drug feature, following the lines of the national law, but all failed of passage.

One bill was introduced allowing physicians to run drug stores in villages in which no drug store was located and ten miles from a town in which a drug store was located. This failed of passage.

Missouri: A law passed making the appropriation (\$20,000 for two years) with a rider cutting off the right to employ special counsel in the execution of the law.

Montana: The following narcotic law passed and was approved February 7th, 1911:

Section 1. It shall be unlawful for any person to sell, furnish or dispose of any opium, morphine, alkaloid-cocaine, or alpha- or beta-eucaine, or codeine, or heroin, or any derivative, mixture, or preparation of any of them, except upon the signed prescription of a physician, or veterinarian duly licensed under the laws of this State, which prescription shall be retained by the person dispensing the same, shall be filled but once, and of which no copy shall be taken by any person, except as hereinafter provided. The person dispensing the same at the time thereof shall endorse on the back of such prescription the name and street and house number of the person to whom dispensed; and the proprietor or manager of the store where dispensed shall keep all such prescriptions in a permanent file, separate from all other prescriptions, in his place of business for two years after the same shall have been dispensed, and shall at any time allow the same to be inspected, and copies thereof to be made by any peace officer, the prosecuting attorney of the county where sold, or any authorized inspector of drugs; provided that nothing herein contained shall prohibit any manufacturer or licensed druggist from selling or delivering any of the above named to a person known to be a licensed physician, licensed veterinarian, or licensed druggist, nor prohibit a physician from dispensing the same in good faith to his patients, nor prohibit the sale of patent or proprietary or medicinal preparations containing opium or morphine, in combination or compound with other active elements wherein the dose of opium is less than one-quarter grain, or morphine not more than one-twentieth grain, or codeine not more than one-quarter grain or heroin not more than one-twelfth grain.

Section 2. It shall be unlawful for any physician to sell, or give to or prescribe for any person any opium, morphine, alkaloid-cocaine, or alpha or beta eucaine, or codeine or heroin, or any derivative, mixture or preparation of any of them, except to a patient believed in good faith to require the same for medical use, and in quantities proportioned to the needs of such patients.

Section 3. Any person found guilty of the violation of this act shall be punished for each separate offense (and each and every individual case shall constitute a separate offense), by a fine of not less than fifty (\$50) dollars, nor more than five hundred (\$500) dollars, or by imprisonment in the county jail for a period of not less than sixty days nor more than one hundred days, or by both such fine and imprisonment.

Section 4. All acts and parts of acts in conflict herewith are hereby repealed.

Section 5. This act shall take effect and be in force from and after its passage and approval.

Approved February 7th, 1911. Edwin L. Norris, Governor.

New York: The following bill was proposed:

Wholesale dealers in drugs, medicines, pharmaceutical preparations, chemicals or poisons shall affix or cause to be affixed to every bottle, box, parcel, and outer inclosure of any original package containing any of the articles of Schedule A a suitable label or band in red ink with the word "poison" upon it. It is unlawful for any person, persons, or corporations, other than the manufacturer, and who is a retail dealer, to sell or to furnish any of the poisons of Schedule A and B in liquid form except, in addition to foregoing, in a bottle of peculiar shape or in a bottle having cork or stopper of peculiar shape to apprise any persons handling the same by sense of touch that the contents thereof contain poison or poisonous ingredients.

A bill known as the Turley bill, backed by the "World," was introduced. "A pharmacist shall be criminally liable for the acts of his clerks; that the name, address, license, number and date of compounding shall appear on the label of every finished prescription prescribed; that a book shall be kept containing the name of the physician prescribing, and his address, the date of receipt, the date dispensed, and the name and address of the dispenser. Prescriptions to be kept for five years. The names of all clerks and proprietors to be filed with the State board. Every prescription to bear the printed name and address of the prescribing physician. Every false entry upon label, box, or bottle to be deemed forgery and treated as such."

North Carolina: A law passed giving the board discretionary power to reinstate after the revocation of license.

North Dakota: The following bill passed in North Dakota:

On and after January 1st, 1913, an applicant for registration as a pharmacist must be at least 21 years of age, have had at least one year's course in an approved college of pharmacy and three years' experience in a drug store under the supervision of a registered pharmacist. After January 1st, 1915, an applicant must have had not less than two years' course in an approved college of pharmacy and two years' experience in a drug store under the supervision of a registered pharmacist.

Ohio: Passed a bill which prohibits the distribution of samples of patent medicines.

Section 12,705 of the general code was amended in two particulars: First, requiring that every drug store must be in actual charge of a registered pharmacist, and second, defining a drug store.

Oklahoma: A law was passed granting permission to veterans of the civil war license to peddle medicine without a fee.

Pennsylvania: The following bill was passed by the Penn-

sylvania legislature and approved on the 9th day of June, 1911: This bill seems to have somewhat of a personal element in it.

Section 1. Be it enacted, etc., That any person who was more than twenty-one years old, and entitled to registration as a pharmacist, as provided in section 3 of the act, entitled, "An act to regulate the practice of pharmacy and sale of poisons, and to prevent adulterations in drugs and medicinal preparations, in the State of Pennsylvania," approved May twenty-fourth, Anno Domini one thousand eight hundred and eighty seven, and who failed to apply for registration within the ninety days, as provided within said act, may make such application at any time within thirty days after the passage of this act, with the same force and effect as if such application had been made within the ninety days provided in the act of May twenty-fourth, Anno Domini one thousand eight hundred and eighty seven: Provided, that the applicant had been continuously employed in the drug business since the approval of the aforesaid act, and pays to the State pharmaceutical examining board the application, certificate, and renewal fees which would be due, and owing the said board had the applicant become registered as provided in section three of the act hereinbefore mentioned.

A bill was also passed creating a bureau of professional education as a sub-department of the department of public instruction. This bill was signed by the governor June 19th, 1911. This law provides for a method of determining the preliminary educational qualifications of applicants for license to practice medicine, dentistry, or pharmacy, and standardizes the examinations of applicants.

A fee of one dollar will be charged each applicant for the issue by the bureau of the certificate of proficiency, following successful passing of examinations, and an additional sum of one dollar shall be charged for each examination. The new law provides \$15,000 for the purpose of carrying out the work of the bureau.

Tennessee: The following law was passed in Tennessee:

Section 1. Be it enacted by the general assembly of the State of Tennessee, That all registered assistant pharmacists under existing law shall be entitled to registration as pharmacists under the rules now applying to pharmacists without further qualifications than that of presenting to the Tennessee Board of Pharmacy satisfactory evidence of five years' actual experience as registered assistant pharmacists as now recognized and registered under existing laws; provided, that such five years' experience shall have been continuous and next preceding the application for registration; provided, further, that all assistant pharmacists hereafter completing the term of five consecutive years' actual experience as such, under registered pharmacists, shall be entitled thereafter to registration as pharmacists under this act.

Application for License to Practice by Physicians in Towns under 2,000 Population.

Section 1. Be it enacted, etc., That from and after the passage of this act, it shall be lawful in the State of Tennessee, for any graduate in medicine, who is regularly licensed to practice medicine in this State, and who has been a practicing physician for not less than ten years, to conduct a drug store or pharmacy and to sell therein any drugs, medicines, pharmaceutical preparations and the like, usually sold in drug stores or pharmacies in this State, and to compound and fill physicians' prescriptions, in any and all towns and cities of this State having a population of not more than two thousand inhabitants by the federal census of 1910 or any subsequent federal census.

Section 2. Be it further enacted, That the prescription department, including the filling of all prescriptions and the sale of all poisons and dangerous drugs, shall be under the personal supervision of such physician, conducting the said drug store or pharmacy.

Section 3. Be it further enacted, That any physician proposing to sell drugs or conduct a pharmacy under the provisions of this act, be, and is hereby required to take out a license as a registered pharmacist, which said license shall be issued to him as now provided by law in the case of pharmacists, by the board of examiners, upon proper showing that he is a regularly licensed physician in this State and that he has practiced his profession in this State for a period of ten years next before applying for such license, and said license shall be issued to him without an examination, he to pay the fee prescribed by law therefor.

Utah: A cocaine, morphine, opium, and so forth law was passed and approved March 20th, 1911.

Unlawful to sell. Exceptions. It shall be unlawful for any person, firm, association or corporation to sell or otherwise dispose of cocaine, morphine, heroin or opium or any of the derivatives of opium, except upon the prescription of a reputable licensed practicing physician, and said prescription shall not be refilled, provided, that the above provisions shall not apply to sales at wholesale by jobbers, wholesalers, and manufacturers to retail druggists nor to sales at retail by retail druggists to a regular reputable licensed practicing physician, dentist, or veterinary surgeon, nor to sales made to manufacturers of proprietary or pharmaceutical preparations for use in the manufacture of such preparations, nor to sales to hospitals, colleges, scientific or public institutions; and provided furthermore, that the above provisions shall not apply to such preparations as are recognized by the United States Pharmacopoeia or to standard proprietary remedies. Provided further than no practitioner of medicine, dentistry or

veterinary medicine shall furnish to or prescribe for the use of any habitual user of the same, any cocaine, morphine, heroin, or opium, or any of the derivatives of opium, or any salt or compound of any of the foregoing substances, or any preparations containing any of the foregoing substances or their salts or compounds; and no practitioner of dentistry shall prescribe any of the foregoing substances for any person not under his treatment in the regular practice of his profession, and no practitioner of veterinary medicine shall prescribe any of the foregoing substances for the use of any human being, provided, however, that the provisions of this section shall not be construed to prevent any lawfully authorized practitioner of medicine from administering in good faith, for the use of any habitual user of narcotic drugs, who is under his professional care, such substances as he may deem necessary for his treatment, when such administration is not for the purpose of evading the provisions of this act.

Penalty. Any person, firm, association, or corporation violating any of the provisions of this chapter shall be deemed guilty of a felony, and shall be punished by imprisonment in the State prison for not less than two years and not more than five years, or by a fine of not less than two thousand (\$2000) dollars nor more than ten thousand (\$10,000) dollars, or by both such fine and imprisonment. Approved March 20th, 1911.

The following law in regard to fees was approved March 20th, 1911.

Every person applying for registration as assistant pharmacist shall, before certificate be granted, pay to the secretary of the board the sum of \$5, and every application for registration as registered pharmacist, shall pay the sum of \$15. In case of failure of an applicant upon his or her first application to pass a satisfactory examination before the said board, a second examination shall be granted him or her without further payment of fee, if applied for within six months from the presentation of such first application for examination.

That all fees paid and fines and forfeitures collected under chapters 1 and 2 of title 62, Compiled Laws of Utah, 1907, and the amendments thereto, shall be paid into the treasury of the State board of pharmacy for its use.

Vermont:

Section 1. Section 5396 of the public statutes is hereby amended so as to read as follows: Section 5396. Said board shall meet annually at the State House on the second Tuesday in January and elect a president, secretary, and treasurer. Three members shall constitute a quorum. It shall also meet once in three months to examine applicants for licenses and certificates, and at least thirty days' notice of the time and place of such meetings shall be given by mail to all known practicing pharmacists and applicants in the State. No. 214, Sec. 1—Section 5402 temporary licenses of the public statutes is hereby repealed.

Section 2. This act shall take effect from its passage.

West Virginia: License fee of \$25 in State and \$25 in town or city reduced to \$2 in each case.

Wisconsin: Two bills of interest to pharmacists were under consideration, neither of which, however, were enacted into law.

The first bill sought to re-enact an old statute which was repealed in 1907. This provided that others than registered pharmacists might lawfully sell drugs, medicines, and poisons, providing they were sold in original packages put up and properly labeled by a registered pharmacist, bearing his name and the number of his certificate.

The second bill provided that no liquor could be lawfully sold by a registered pharmacist anywhere in the State except on the prescription of a licensed, practicing physician. Both of these measures were opposed by the retail druggists of the State.

Colleges and Education.

The wise man profits not only by his own mistakes but by the mistakes of others. We have seen a multiplication of the "diploma mills" in medicine following the requirement of a medical diploma for registration, and one of their serious problems, at the present time, is the elimination of unworthy institutions. To prevent a similar unfortunate condition in pharmaceutical education the standardization of the schools should be undertaken at once.

In the standardization of the medical schools they have been fortunate in having the assistance of the Carnegie foundation. According to the definition of a medical school or college as adopted by the Carnegie foundation only about one-half of our medical schools are teaching medicine in an acceptable way. The report of Mr. Flexner for the Carnegie foundation for medical education has already had far-reaching effects, as 47 medical colleges have adopted higher entrance requirements and 7 examining boards have adopted preliminary requirements in advance of a four year high school education.

As a result of the investigation of the Carnegie foundation conclusive proof is given that the only way to get first hand information concerning colleges is to have them inspected by competent persons who can report without fear or favor on the actual conditions found. It may be true in pharmacy, as they found in medicine, that some of the best schools on paper were utterly worthless as far as teaching facilities were concerned. A motion carried last year favoring the inspection of pharmacy schools by the Carnegie foundation and the statement was made that they would undoubtedly undertake the work. If the Carnegie foundation does not undertake this work this association should assume the responsibility of having it done.

The report of the secretary of this section last year showed conclusively the need of standardization of courses of study in our pharmacy schools. From the reports of the pharmacy schools received we find the syllabus has either been adopted or is used as a general guide in practically all, and has, I believe, been of great benefit in systematizing and unifying the teaching among our colleges. The conference of pharmaceutical faculties is making progress slowly, very slowly indeed, as thought by some. It should be remembered that reforms in education as in every thing else are best brought about, and more permanent good accomplished, by keeping in close touch with public sentiment so that rules and regulations adopted will be put into actual practice. Even as slowly as progress has been made by the conference of pharmaceutical faculties some of our colleges, I fear, while apparently living up to the letter of the law, have certainly violated in spirit.

Good results have been brought about by State boards of pharmacy which have power to make rules governing their examinations, and to their credit regulations in several instances have been made raising the standards of education so that virtually their rulings amount to prerequisite laws in other States.

Since the supreme court of the United States has decided that the food and drugs act cannot be held to apply to therapeutic claims the action of President Taft in sending a special message to congress requesting that the food and drugs act be so amended as to include remedial claims within its jurisdiction, so that the government will have legal warrants for its prosecutions, was timely and wise.

From statistics collected from the colleges the total enrollment of pharmacy students seems to be about the same as last year. It is to be noted, however, that there has been an increase of lady students. The University of Washington, at Seattle, leads with 20 for the past year. It is to be noted that the number of students taking pharmacy holding B. S. or A. B. degrees is also largely increased, which is certainly a hopeful sign.

The department of pharmacy of the University of Tennessee, at Knoxville, was abolished in June, 1910, and the pharmacy school of Drake University, at Des Moines, Iowa, has not been in operation the past year. This leaves the number of pharmacy schools at present, counting good, bad, and indifferent, in the United States, at 72. The University of Colorado is to establish a pharmacy school during the coming year at Boulder.

Boston, Mass., August, 1911.

H. L. Taylor moved that Mr. Teeters be requested to continue his statistical work. After it had been pointed out by some members who were more familiar with the working of the section than the mover seemed to be that the collection of such statistics was part of the official work of the secretary of the section, a motion to lay the previous motion on the table prevailed.

Portions of President Eberle's address which had been referred to this section came up for action. The recommendation that a committee be appointed consisting of one member from each State (etc.) to consider narcotics and legislation pertaining thereto, was approved.

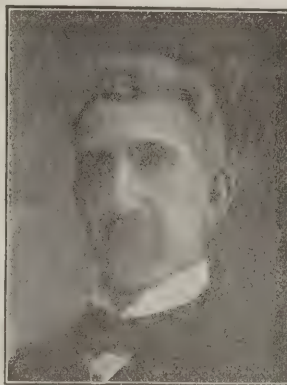
The recommendation that the association work for commissions of pharmacy to take the places of the present boards of pharmacy, and to have broader authority, duties and responsibilities, was referred to the committee just

ments were discussed at one time. The paper is reprinted below:

Commercial Training Outline of the Pharmaceutical Syllabus.

By E. FULLERTON COOK.

In the Pharmaceutical Syllabus, first edition, 1910, recognition has been given to the subject of commercial training. Suggestive outlines are offered and about 65 hours of work required in the total of 1000 hours for the



L. E. SAYRE.



E. FULLERTON COOK.

Never misses a meeting and Much interested in the commercial education of druggists. always brings a good paper.

complete pharmaceutical course. This 1000 hours of instruction is divided, in the syllabus plan, into three groups; 300 hours are assigned to the general subject of materia medica, 400 hours to chemistry and 300 hours to the laboratory and theoretical branches of pharmacy.

Of the 300 hours devoted to teaching the special subject of pharmacy, 25 are given over to the theory of pharmacy, 65 to practice, 65 to manufacturing, 50 to dispensing, 20 to Latin, 10 to arithmetic, 10 to bookkeeping, 50 to commercial pharmacy and 5 to jurisprudence. The last three commercial branches, totaling 65 hours, constitute about 22 per cent. of the total 300 hours allotted to this division.

Opinion may differ as to the proportion of time, in a pharmaceutical education, which this subject deserves. The prophecy has been made by a well-known writer on this subject that the time is coming when 50 per cent. of all pharmaceutical training will be commercial.

However, for present conditions, the framers of the syllabus have apportioned as many hours for this work, in comparison with the allotment of the remaining 235 hours for pharmacy, as may be wisely given in a 1000 hour course.

Until a larger number of colleges bring their commercial courses up to the suggested standard of 65 hours, or until the total hours of training are increased, there should be no enlargement of the proportional time now assigned to commercial training.

The present outline of the syllabus is excellent in part. The outlines under "Commercial Pharmacy," first year, page 123, and continued for the second year, page 125, are helpful, although in many instances quite fragmentary and incomplete. There is some confusion about the teaching of bookkeeping. Under "Pharmaceutical Arithmetic," page 106, 15 hours of didactic and 5 hours of laboratory instruction are assigned to a course of arithmetic which alone would demand the full time, if satisfactorily treated, while to it is added "Bookkeeping—Single Entry—Double Entry—and Commercial Forms." The work required here is out of proportion to the hours.

Later, on page 125, under "Commercial Pharmacy," bookkeeping is reoutlined and most elementary training suggested, such as "theory of bookkeeping" and "necessity for proper books of account," while practical bookkeeping work is duplicated.

But the outline most impossible of accomplishment in the allotted 5 hours is that on pages 128, 129, 130, 131, 132, and 133 on "Pharmaceutical Jurisprudence." However meritorious this detailed course, covering six pages in



JOHN B. BOND.



F. C. GODBOLD.

Two loyal old-time members from the far South

provided for when it is appointed, without recommendation.

The message of President Taft to congress in which he strongly advocated a strengthening of the food and drugs act so as to make it apply to false therapeutic claims (see the CIRCULAR for July, page 374) referred to in President Eberle's address was endorsed.

H. L. Taylor presented the report of the national syllabus committee for W. G. Gregory, who could not be present. This was followed by a paper, and the two docu-

bare outline, one must despair of teaching it properly in the time assigned.

The outline here again shows a lack of co-ordination in preparing the course, for subjects are duplicated, which appear on pages 125 or 126, such as insurance, banking, negotiable instruments, partnership and corporations.

These brief criticisms will serve to call attention to some of the needed changes in the present syllabus, in the commercial outlines, but the suggestion of greatest importance here offered is the *method* of teaching. It is believed that subjects should not be taught disconnectedly; for them to properly interest and impress the student, they should be so arranged and grouped that their necessity and importance will be realized. For instance, a completed life history of a business, in miniature, should be experienced by each student; he should be led step by step through the conditions, as nearly as they can be simulated, in which he will need the knowledge, and taught the subject at the time when it can be applied. The facts will then be interesting and will lose their theoretical aspect. The following may illustrate more clearly what is meant:

The course can be started by assuming that the student is about to enter the drug business. This introduces the problems involved in establishing a successful store, i. e., capital, training, location, partnership, buying an established business, starting new store, professionalism vs. commercialism, etc., and these questions may be discussed at once. Being now ready to assume the responsibility of proprietorship, a number of other subjects naturally arise, as, banking, negotiable papers, relations with a landlord and the lease, store arrangement, ordering supplies, buying to advantage, advertising, store management, salesmanship, letter-writing, insurance (fire, life and indemnity), licenses, establishing personal credit, allowing credit to customers, discounting bills, expenses and their relation to profit, etc., etc.

All these subjects are closely linked with the bookkeeping which will be required, and if the items of business are properly selected, the necessary business facts can be introduced as the course proceeds and explained and illustrated at the proper time.

In so far as legal training is concerned a few principles in the field of general law is about all that a student of pharmacy can safely use. It will be wiser to trust a reliable lawyer when a real need arises. However, in the special branch of laws relating to pharmacy and pure drug legislation he should be thoroughly grounded, so that no doubt of duty and obligation can exist.

This paper has not been offered in any unfriendly spirit; the value of the syllabus in bringing about more harmony in pharmaceutical education is appreciated. The suggestions are presented with the hope that they may aid, by constructive criticism, in the development of a more perfect outline in the next edition.

C. B. Lowe said the syllabus was a good thing but new and unbalanced at present. He spoke of the third edition on physiology recommended therein, on the nervous system. No physician, he said, would undertake to lecture on such a complicated subject until he had brought his students up to the point of understanding something about it by more than two lectures.

H. B. Mason called attention to the fact that the syllabus was only tentative yet, and was undergoing drastic revision. In time it would be made as nearly perfect as circumstances would permit. The committee welcomed constructive criticism, such as had been offered by Mr. Cook.

On motion of Mr. Lowe the paper by Mr. Cook was referred to the syllabus committee.

After a short intermission, during which time an adjourned session of the general session was held, the section proceeded with its usual business.

The next paper presented is herewith printed in full:

The Real Educational Needs of the Pharmacist.

By HENRY P. HYNSON.

These conclusions are arrived at from a point of view secured by standing upon a mass of my own needs and deficiencies, that is heightened and made more secure by the deficiencies of many proprietors with whom I have come in contact, and, more particularly, by the glaring defects of clerks I have employed.

It must be clearly understood that I am not presuming

to criticise the syllabus of studies outlined by the able national committee which has had that matter in charge; indeed, I will be glad if I am able to assist that body of earnest workers in the good work they are doing.

It would seem that a person knowing, and knowing well, all the subjects that that committee has prepared for a college curriculum, might be a fairly good pharmacist. Yet I believe there will be many who will, when the course of studies proposed be put into operation, make a uniform rating of over ninety *percentum*, and then fail, sadly fail, to meet the requirements of the retail pharmacist of to-day, even in strictly pharmaceutical pursuits.

I will confess that my standard of success is quite different from that of many others who may be very properly rated as both sane and sound. The mere fact that a pharmacist wears large diamonds in his shiny, celluloid shirt front or rides in an orange, red and green colored automobile, or cleaves placid waters with a sputtering motor boat and pays for them all, while still having "money to burn," does not, in my opinion, prove that he is or has been a successful pharmacist. I am quite ready to grant that money making and money saving constitute one and a very essential element of success. Any one who, barring unusual misfortune, fails to do this can not be styled successful. But, beside providing for himself a comfortable living and a few ducats for a "rainy day," the really successful pharmacist must have made himself truly useful to the community in which he is located, and, by all means, he must have won respect for the vocation in which he has served; glory and honor must have been added to his profession because of his accomplishments and because of his honorable practice. Only such practitioners will be remembered; only such practitioners will leave the world of pharmacy and, incidentally, the world at large better because they lived, thus evidencing the only kind of success that is really worth seeking.

Now to win such satisfactory results, one must, of all things, have an abundance of *common sense*. That means, I believe, that he should possess that quality of mind which will prevent him from making a fool of himself when solving problems, the exact counterpart of which he has not solved before or which have not been solved in his presence. Some call it logic, some call it reason, but it is neither, because satisfactory results may not follow the use of these qualities. It would be better to style it self-reliance or dependence upon natural "wit."

I do not believe it can be accurately concluded that this "common sense" is ever inherent; I am strongly of the belief that it is, after all, acquired through experience. Here the important matter for consideration is to find out how it is that some acquire so much of this most valuable knowledge quite early, even with their first impression. If it is environment or parental excellence, then, for the love of coming generations, let us try to find what and how it is, that very many more may acquire it.

I do not want to be hazy about this; I trust to be understood and as saying that when this quality of mind is found lacking in a student or apprentice, in some way or another, it must be supplied to him and, if he cannot acquire it by some process of education, then he must be forced out of pharmacy's domain by our colleges, or if not by them, by our boards. Judging from the output of a half dozen colleges, I am inclined to think the schools have not been able to eliminate this fool-class of would-be pharmacists. To do this, however, is fundamental and we must not be satisfied; we, who try to be honorable and true, must not be satisfied until we "nip off" these entirely impossible buds from the pharmaceutical bush, early, before they even begin to open. But to do this effectively, we must establish a just and thorough test for "buds." I wonder if it will ever be possible to use such tests in un-endowed schools?

Another peculiar something a pharmacist needs to be taught is to be dignified; he must acquire true dignity. By this I mean he must be intelligent enough, careful enough and honest enough to know himself, and thus knowing himself, he must be so well equipped as to win, first, his own respect and, secondly, the respect of those who really and truly know him.

True pharmaceutical dignity, then, is the behavior that is inspired by reasonable self-respect and by the generous respect of those with whom we come in contact in the practice of our profession. Refinement and dignity are much the same or are, at least, inseparable. Both are the result of self-examination and self-instruction, acquired

and stimulated by comparing one's self with idealistic standards of excellence; when he should be more accurate in his findings and more severe in his requirements than he is in his estimation of others.

We pharmacists need, probably more than anything else, to be cultured; broadly cultured. I understand culture and training to mean much the same. I do not believe either consists entirely in possessing much knowledge of the classics, of higher mathematics or of many modern languages. All these *contribute* to culture, but I question the quality of any one's culture when he is not able to make himself easy in polite society or able to successfully meet the requirements of higher social life. The appropriately cultured person is always conventional, and it is



H. P. HYNSON.

A man who can always be counted upon to rise to the occasion.



G. M. BERINGER.

A diligent worker in formulae for the Pharmacopœia and National Formulary.

a sad spectacle one makes who is conspicuous because of oddities that are his.

Standards for culture may be selected from those persons in a community who enjoy universal respect and from those who are prominent because of real worth and because they really merit the position they occupy. It is quite easy to separate the true from the false in any community, and thus find helpful standards.

Yet, withal, pharmacists, like all men who really bear the image of the Creator, need to be or to become truly romantic; that is, able and willing to do even the unusual if that is necessary for truth's sake. Romance never clashes with the conventional; it is often the quality that enables us to be conventional at the sacrifice of pride, ambition or some such less creditable attribute of our nature. We are romantic when we sacrifice possible gain, gain that others do not hesitate to acquire, because we will not ignore the higher ideals of our vocation, and it is the true and beautifully romantic spirit that enables us to resist temptations, to do the right and boldly stand for the nobler and more useful forms of practice; certainly that form which obeys civil law and follows the leadings of the more delicate precepts of personal righteousness.

The pharmacist needs to be taught and to learn much more regarding true art; he must, indeed, become more artistic. Probably such knowledge is really a part of general culture; certainly, one may be neither polite nor dignified without a fundamental knowledge of art. It is this information that will make him able to appreciate real values, and it is this same knowledge that will lead him to employ durable, appropriate and useful fixtures and appointments in the prosecution of his business. Nothing, it is believed, conduces so largely to the doing of better things, in better ways, than does this knowledge of true art. It inspires its possessor with the desire to present the higher forms, those that more nearly approach the ideal. The real artistic spirit will guard one against committing vulgarities which entirely counteract the helpful influence of the highest technical acquirements.

I have not intended to convey the thought that less technical knowledge is required. I would, however, suggest this, in case it be found necessary to make place for this more general teaching.

I am confident, because of what I have heard so many times, that it will be said these broader teachings are no part of a technical training. Let me advise that I have not attempted to discuss the technical training of the

pharmacist at all, but have tried to show what I believe to be his greatest educational needs, no matter where they are to be supplied, and I am trying to be extremely practical by calling attention to the fact that there is, annually, going to the schools of pharmacy of this country, as has certainly been the case since 1876, a class of young men who need and have needed the very instruction that I have suggested; needed for the better serving of the public, for the greater advancement of pharmacy and for general betterment of themselves. Do not overlook the fact that it is this kind of grist that has been coming and that continues to come to the pharmaceutical college mill. I believe I may truly say it is the very same kind that will continue to come for years and years. Therefore, I believe it to be our duty, a part of our work, to so modify our mills that they will clean this grist and prepare it for the final finer grinding. Let us take it as we find it, as it comes to us and, during a preliminary year, blow out all the chaff, blow it forever away, while cleaning and polishing the sound grain. As it is, we are mixing chaff and erudities and deficiencies and misfortunes all together with results that are, by no means, satisfactory to the three factors most interested; the public, the employer and the employee. Secondary schools may help and colleges may more largely assist, but while these remain such uncertain quantities as they now, most certainly, are, a practical preparatory course in the schools of pharmacy is really the only thing that will supply, out of the material at hand, the quality and quantity of pharmacists required to meet present day demands.

Common sense, dignity, culture, are the possessions; romantic, artistic are the qualities! Is there a successful practical pharmacist within the sound of my voice or anywhere else who will not admit, when he fully understands what these mean, that they are more essential to the really helpful assistant than is all the strictly technical training he may secure at the best of our pharmaceutical schools? These possessions and qualities make up the advantages that it has been thought result from "drug store experience." It is very true that, when this so-called experience gives such things, it is, indeed, most advantageous. But what is the situation when it does *not* give these, but instills everything that is contrary; what then?

Let us see, just for a moment, what these possessions and these qualities mean. Common sense, I believe, means no more than the ability to properly attack a problem. When a clerk *goes at a thing right*, we know how valuable he is; how safe he is and how much he will accomplish. We all know that this ability does not come from technical training, necessarily, although, technical training, if properly directed, will greatly assist in its development.

Dignity and culture make the successful salesman or merchant; they claim respect and inspire confidence. Those, assisted by artistic temperament and attainments, make an invincible combination that will be more effective in the proprietor than it is in the assistant, however powerful it may there appear. Carriage, manner, conversation, dress, store, stock, utensils, labels, advertisements, everything material that is worth while, should come under the beneficent control of these; dignity, culture, art.

It is, however, the romantic spirit, true heroism, that makes up the character and shapes the policies of the business and the business man. Nothing less and nothing different will prove effective. Neither fear of the law or lust for gain will be powerful enough. Romance alone will bring about good results; love it is, after all, love for the real, the true and the good.

And so, my dear friends, with the material at hand, we must try a year of probation; a year of tutoring in common things, that are really higher things; a year in making up deficiencies and in smoothing rough surfaces; a year in refining, which means a year of much elimination, of *helpful* elimination. Am I understood? Three years? Yes, by all means, but be very careful that there is no more of the technical than there is now. One year of fundamental preparation; one year devoted to making and finishing *men*; two years devoted to making and finishing practical, useful pharmacists.

"Are the Present Day Needs of Pharmacy Met by the Present Curriculum?" was the title of a paper by L. E. Sayre, of Lawrence, Kan., which was followed by one along somewhat similar lines by Philip Asher, of New Orleans, in

which the author referred especially to the examinations by boards of pharmacy of candidates for licensure.

This brought the session to a close.

Second Session, Thursday Afternoon August 17th.

Owing to a slight indisposition on the part of Chairman Johnson, Associate J. C. Wallace, of New Castle, Pa., presided at the second session of the section, held Thursday afternoon.

In his report as chairman of the committee on national legislation, referred to this section by the general session, H. P. Hynson recommended the establishment of a permanent legislative conference under the auspices of the section, to be composed of delegates from the American Pharmaceutical Association, the National Association of Retail Druggists, the National Wholesale Druggists' Association and the Proprietary Association of America. His reason for suggesting that the American Pharmaceutical Association take the lead in this matter was that under itsegis all branches of the trade could meet, while the same was not true of any of the other bodies mentioned. He also referred with some degree of detail to various legislative matters of a national character, mentioning pure food and drugs bills, public health measures, narcotics and patents.

Messrs. Freerichs and Anderson thought the idea that a legislative conference be created a good one, but deemed it more fitting that such a conference be left free to organize itself as it saw fit, and not be tied to the American Pharmaceutical Association.

The section agreed that the proposed step was in the right direction and referred the proposition to the council to be put into effect, amended, however, as suggested by Messrs. Freerichs and Anderson.

A paper on national legislation was read by Mr. Freerichs, in which he recapitulated much that had been done by congress of interest to druggists.

L. E. Sayre submitted the report of the committee on drug reform. (An outline of the work of this committee is given in the CIRCULAR for February, page 66.)

H. P. Hynson, chairman of the committee to which had been referred the chairman's address, submitted a report approving the two principal recommendations made in the address, namely, (1) that the association in all its departments endeavor to bring about general uniformity in pharmaceutical legislation, and (2) that broader curricula, with especial reference to the commercial needs of pharmacists be introduced in the colleges of pharmacy. The report was adopted and the first recommendation was referred to the council and the second to the national syllabus committee.

Other papers, read either in full or by title, and duly referred, were contributed by G. H. Meeker, of Philadelphia; C. A. Mayo, of New York; R. A. Lyman, of Lincoln, Neb.; Henry Kraemer, of Philadelphia; M. I. Wilbert, of Washington; J. W. Sturmer, of Lafayette, Ind.; and H. M. Whelpley, of St. Louis, after which the session adjourned.

SECTION ON PHARMACY AND DISPENSING.

First Session, Wednesday Afternoon, August 16th.

After going through the formality of opening the first session of the section on practical pharmacy and dispensing Wednesday afternoon, Chairman Louis Saalbach, of Pittsburgh, called upon Otto Raubenheimer to present a paper on the color of tincture of iron citro-chloride. Mr. Raubenheimer illustrated his remarks with various samples of the tincture, ranging in color from light-green to greenish-brown.

A. B. Stevens, of Ann Arbor, referred to the complicated chemistry of preparations of the compound iron salts. He had begun a paper on the subject several years ago, which he had not yet completed, being only about knee-deep in it.

Remarks were also made by C. M. Ford, of Denver, and H. P. Hynson, of Baltimore, the latter expressing satisfaction at learning that so well-qualified a man as Mr. Stevens was earnestly at work on the subject.

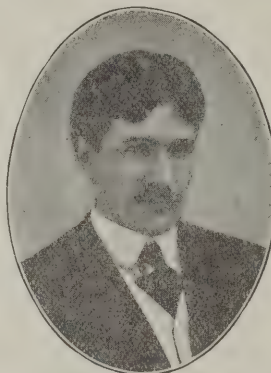
INFUSION OF DIGITALIS.

Infusion of digitalis came in for a good share of discussion, both its mode of preparation and its physiological properties being touched upon. Charles M. Ford, of Denver, led off with a paper on the subject. J. L. Lascoff, of New York, followed with another, in which he told of

prices paid for digitalis and of the activity which the various samples showed when tested physiologically. The higher-priced samples showed greater strength in almost exact ratio to the price.

C. E. Vanderkleed, of Philadelphia, corroborated Mr. Lascoff's report, saying that he had made the assays. Otto Raubenheimer raised a laugh by expressing astonishment at Mr. Vanderkleed's willingness so soon again to make physiological assays for a New Yorker. (See the CIRCULAR for April, page 226.)

E. V. Howell, of Chapel Hill, N. C., told of experiments which showed that stronger heart action resulted from the administration of the infusion.



P. H. UTECH.



LOUIS SAALBACH.

New Chairman of the Section Retiring Chairman of the on Practical Pharmacy and Section on Practical Pharmacy and Dispensing.

M. I. Wilbert, of Washington, said that Mr. Lascoff's conclusion, in so far as it made price a guide to physiological activity of digitalis, was misleading; the matter was far too complicated to be settled in such a simple manner.

Joseph P. Remington, of Philadelphia, in reply to a question, said that digitalis should be kept in tin cases, not covered so tightly as to prevent evaporation of the natural moisture of the leaves. He thought physicians should prescribe infusions more and alcoholic preparations less. High prices were not a guaranty of high quality. Darker (and so-called lower-grade) rhubarb sometimes was more valuable than the fancy specimens, and other instances were not lacking.

The question as to why alcohol was introduced into infusion of digitalis evoked several answers, some of them contradictory; some said that it was used as a flavor, others as a preservative. Mr. Ford said he did not put it in at all.

Mr. Hynson stated that he always made his infusion fresh when ordered, and had built up a large trade in it, physicians from all over Baltimore sending to him when they wanted an article A1. He thought that druggists should be warned, through the pharmaceutical press, to dispense only the fresh infusion, made according to pharmacopeial directions, and after some objections, on the score that such a warning would be an insult to honest and competent pharmacists, Mr. Hynson's idea, put into the form of a motion, was adopted.

A RED COLOR FOR PHARMACEUTICALS.

Charles H. LaWall, of Philadelphia, told of a new color for pharmaceutical preparations, and exhibited samples. He said that he had been requested to produce a color similar to one used in a proprietary antiseptic solution. In his experiments he had found that orchil or archil, a dye made from cudbear by sulphuration, gave the desired shade and did not bleach out. This was to be purchased of the confectionery manufacturers' supply houses, under the name "vegetable red." It could be made synthetically from coal tar, and in some States was looked upon as a coal-tar dye and was treated accordingly under their laws.

S. K. Sass, of Chicago, referred to some of his experiences with colors for antiseptic solutions.

BELLADONNA CULTURE.

"Belladonna Culture in the United States" was the title of a paper presented by L. E. Sayre, of Lawrence, Kan. In speaking of the rapid disappearance from our fields and forests of many of our native drugs, he said that the ex-

port from Kansas of echinacea was 100 tons annually, most of it gathered in a single county, and this in spite of the fact that some investigators had pronounced the drug practically inert. He referred to the experimental farm of Albert Schneider, in California, reporting that five acres planted in belladonna yielded $2\frac{1}{2}$ tons of the herb, which assayed up to the official standard for belladonna leaves. Mr. Sayre wanted American grown belladonna admitted into the Pharmacopœia.

A paper on "Chocolate Cachets," by F. M. Apple, of Philadelphia, was read by P. H. Utech, of Meadville, after which the nomination of officers brought the session to a close.

Second Session, Thursday Forenoon, August 17th.

When Chairman Saalbach called the second session to order Thursday forenoon, Secretary Utech read the minutes of the preceding session, which were approved.

DISTILLED WATER.

"Notes on Distilled Water," was the title of a paper by W. H. Allen, of Detroit, read by the secretary.

E. Fullerton Cook described the still used at the Philadelphia College of Pharmacy.

Otto Raubenheimer related some experiences he had had with so-called distilled water which was far from meeting the requirements of the Pharmacopœia.

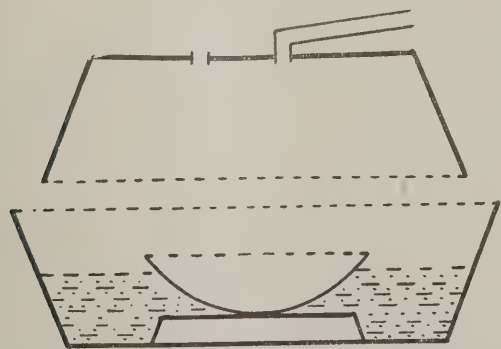
The chairman thought every pharmacist should prepare his own distilled water.

The best window display that Mr. Lascoff had ever made consisted of a water still in operation.

At Nashville, said W. R. White, much water from the ice factory was used in pharmacy as distilled water, but it contained iron. Messrs. Ford and Raubenheimer agreed that the water sold for distilled water by the ice factories was not true to label.

HOME-MADE STILL.

The next paper was by James H. Beal, and was entitled "An Inexpensive Pharmaceutical Still." This still, he said, consists of two tin or agate-ware pans of suitable size and shape, a porcelain dish, and a tin pie plate. The smaller of the two pans, which is to be inverted over the larger, so as to form a closed receptacle, is to have two perforations in its bottom (which becomes the top of the still), one for a vent or to be used for adding liquid to that originally in the porcelain dish, and the other to be fitted with a pipe, leading to the condenser. The pie plate, which should be perforated, is placed in the lower pan, the porcelain dish, containing the marc from which the alcohol is to be recovered, for instance, is placed on the pan, glycerin or some similar substance is poured in the lower pan in quantity sufficient to form a steamtight joint with the upper pan when it is introduced, but not sufficient to float the porcelain dish, or to come into contact with its contents, the upper dish, inverted, is then pressed into the lower one until it fits tight below the glycerin level, and the still is ready for the application of heat as soon as the condenser is attached. The upper pan may be held in place by weights or wires.



Beal's Home-Made Still.

When Mr. Beal had finished describing his home-made still, Mr. Raubenheimer observed that even a professor could be practical at times.

John Uri Lloyd, of Cincinnati, was carried back to his boyhood days by Mr. Beal's talk. He well remembered the time when, as a lad, he had had the desire to experiment in physics but had not the necessary apparatus. He

recalled his first attempt to produce oxygen. He had his old Fownes' chemistry with its directions to use potassium chlorate and black magnesium oxide. He used a large milk bottle as a retort, and his mother's old-fashioned camphor bottle for a receiver, but for a time was at a loss to know how to convey the gas from one to the other. After vain experiments with elder, which split when mixed with some dry absorbent powder, as kiesel in the garden, and used these successfully.

It was brought out in the discussion that the Lloyd still, in use in some of the largest pharmaceutical manufacturing laboratories, had been developed from the rudimentary apparatus just described.

MORE ABOUT RED COLORING MATTER.

Alexander Gardiner, of Brooklyn, read a paper on "The Coloring Principle of Cudbear" on which he and Otto Raubenheimer had collaborated, and submitted a number of specimens. He extracted this principle by percolation with acetone, the yield being about $8\frac{1}{2}$ per cent., and had named it pershionin. It was a semi-liquid which he had been unable to dry and powder successfully, although when mixed with some dry absorbent powder, as kieselghur, it would remain in a pulverulent condition. Cudbear, he said, contains about 4 per cent. of sodium chloride, which interacts with some of the substances present in certain mixtures with which it is used, with the result that the color is destroyed.

He gave this formula for a red show-globe color:

Pershionin	10 grains.
Wood alcohol.....	8 ounces.
Ammonia water.....	6 drams.
Water.....	enough to make 1 gallon.

Mr. Lloyd advocated the more extensive use of innocent vegetable colors in pharmacy, in preference to those of a questionable character. He spoke of curcuma, chlorophyll, and others, and said that we needed color standards that would remain one color always.

The next paper read by its author, is here presented in full:

A New Method of Making Tincture of Opium.

BY WILLIAM R. WHITE.

Tincture of opium, which is undoubtedly the most important preparation in the Pharmacopœia, has been the subject of much study and investigation. Many methods have been devised for its manufacture, the majority of which have involved both the principle of maceration and percolation. The chief feature of this method, however, is that it is based entirely on the principle of maceration. There are three points in which the writer claims it has an advantage over the U. S. P. method, namely, (1) it entirely exhausts the opium, (2) it avoids the slow process of percolation, and (3) it recovers a part of the menstruum left in the marc.

The process is as follows: Take 100 grammes of the U. S. P. granulated opium and add to it 500 c.c. (mils) of boiling water. Macerate for forty-eight hours with occasional stirring, add 500 c.c. (mils) of alcohol; macerate again for forty-eight hours with occasional agitation, then allow the drug to precipitate, decant the clear supernatant liquid, place the residue on a filter and allow the menstruum to filter until it ceases to drop; then place the filter and contents in a tincture press and express as much as possible, add the filtrate to that portion decanted, measure the whole, noting the difference between that obtained and the 1000 c.c. (mils) of menstruum used. The mass is then exhausted with hot water by adding about 80 c.c. (mils) at a time, allowing it to macerate a few hours, then expressing it. This operation is repeated until the opium is exhausted, which can be ascertained by testing the filtrate with the general alkaloidal reagents. The combined extractions are then evaporated on a water bath until the volume is equal to one-half the difference noted above. This is then mixed with an equal volume of alcohol and added to the measured filtrates. The whole tincture is then filtered, and is ready for use.

If a press is not available, the same results can be obtained in the exhaustion of the drug with the hot water by repeatedly macerating and filtering instead of expressing, except that all the alcohol left in the marc will be lost by the subsequent evaporation. About 400 c.c. (mils) of hot water has usually been found sufficient to complete the exhaustion. Some samples of opium, however, seem harder than others to exhaust.

The principal objection to this method is the time that is required in evaporation. This is to a large extent under the control of the operator and can be hastened when desired by using a greater number of evaporating dishes or by evaporating in vacuo.

There seems to be no longer any dispute over the question whether water will exhaust opium of its morphine, since the United States Pharmacopœia has relied upon this fact in its directions for making the deodorized tincture of opium; also in the extraction of the opium in the assay process.

In 1902, Dr. E. A. Ruddiman published an article in the Bulletin of Pharmacy, volume xvi., page 368, in which he claimed that the opium was not entirely exhausted by the diluted alcohol used in the United States Pharmacopœia 1890 process. In 1906, H. A. B. Dunning, in a paper read before the American Pharmaceutical Association, stated that it had been proved by assay that neither the old nor the new U. S. P. method for making tincture of opium exhausts the tincture made by the above method, the writer can state that his results have proved conclusively that this method does completely exhaust the opium of its morphine.

The saving in alcohol by using this method is quite an item in the cost of the tincture, especially where large quantities are made at a time.

In conclusion, the writer will state that this method has been in constant use by one firm for fifteen years with the most favorable results, and it is his firm belief that the practicability of this method will appeal especially to those pharmacists who are not prepared to assay their finished tincture.

Mr. Raubenheimer called attention to the fact that the alcoholic content of tincture of opium had been reduced in the German Pharmacopœia to 33 per cent., and he thought it should be decreased in the United States Pharmacopœia. He had made good tincture of opium by using only 25 per cent. alcohol.

W. H. Glover, of Lawrence, Mass., made "A Plea for More Working Formulas for Chemicals in the United States Pharmacopœia." Chemicals which are unstable in their nature and are called for but seldom could often be made by the dispenser himself if he had official directions for so doing. He mentioned zinc iodide as an example of the kind of chemicals he had in mind.

Mr. Lascoff believed that many deliquescent chemicals might with advantage be kept by pharmacists in the form of solutions of definite strength, especially as they were seldom prescribed except for administration in liquid preparations.

Mr. Sass wanted more chemical formulas in the Pharmacopœia. When a substance was called for by a formula in the National Formulary, there should be an official standard for that substance. The objection that there was danger of making the Pharmacopœia too large did not seem valid to him, as he did not carry his Pharmacopœia around in his vest pocket, but kept it in his store, where there would always be room for it no matter how large it might grow to be.

Mr. Wilbert suspected that the formulas for chemicals in the back part of the Pharmacopœia had been overlooked by some of the users of that book.

Mr. Utech read "Notes on Some Pharmaceutical Preparations."

In the discussion which followed, Mr. Lloyd spoke of the old-time "Churchill's consumption cure" which he had compounded when a lad in W. J. M. Godon's store at Cincinnati in 1864. He gave the formula, which is practically the same as that now to be found in the Pharmacopœia under "Syrup of Hypophosphites." Churchill's, he said, was the original syrup of hypophosphites.

Edward Kremers, of Madison, Wis., told his experience with a dermatological prescription for precipitated sulphur, giving specimens of the product as made by various methods. Incidentally he said that it was the first time he had appeared before the section.

Messrs. Lloyd, Lemberger, and Good then vied with each other in telling of old-time methods of making up sulphur preparations. Mr. Lemberger said there was a big demand for itch remedies during and immediately after the civil war. Mr. Good had made barrels of Vlemink's lotion according to a formula in the old United States Dispensary before there was ever such a thing as a National Formulary.

J. L. Lascoff read a paper on "Sanitation in Pharmacy"

in which he gave expression to many views—some of them extreme—as to how a pharmacist should employ sterilization and aseptic methods. He spoke of the danger of carrying disease germs from a sick room and disseminating them elsewhere, by dispensing solution of magnesium citrate in second-hand bottles. He said bottles of this kind should be sterilized with formaldehyde before their second use. This, he said, could be done at a cost of ½ cent for thirty bottles.

Mr. Sass did not take back "magnesia" bottles, and found that while some of his customers did not like this at first, in the long run it had proved to be a good advertisement for his store. He did, however, refill a customer's own bottle for him. Mr. Sass also spoke at some length on his process for making cataplasm of kaolin.

As the hour for adjournment had arrived the following papers were read by title only and referred to the publication committee:

"A Few Questions Suggested by Comparisons of National Pharmacopœias," by Oscar Oldberg, of Chicago.

"N. F. and U. S. P. Work: What Have You Done with It?" by W. A. Hall, of Detroit.

"A Few Laboratory Notes," by Thomas A. Egan, of Haverford, Pa.

"Pharmacy Notes," by Louis Schulze, of Baltimore.

SCIENTIFIC SECTION.

Meetings of the scientific section were held almost continuously throughout the week, regardless of the sittings of the other sections, so great was the amount of material brought before it for consideration, and so loyal to science were those members who constituted the chief attendants at the meetings. Chairman A. H. Clark, of Chicago, presided and presented an extensive program of papers and discussions. He was assisted by Secretary W. O. Reichtman, of Satsuma Heights, and Associate C. H. LaWall, of Philadelphia.

In his address Chairman Clark spoke of the record of the section as leader in scientific thought in pharmacy, and said he believed even better work would be accomplished by the section if its organization were materially changed.

E. L. Patch, of Boston, chairman of the committee on drug market, submitted a report, the greater portion of which is here given:

REPORT OF COMMITTEE ON DRUG MARKET.

There continues to be marked improvement in the character of drugs and chemicals. Some reports would not indicate this, because the authorities naturally endeavor to secure samples that they believe to differ from the standard and in many cases publish as adulterations deficiencies in strength and differences in the products purchased from the artificial standard they may create.

To illustrate: Out of 931 samples purchased by one board, about 24 per cent. were pronounced as adulterated or varying from legal standards. This number included liniment of camphor 7 samples, containing from 20 per cent. to 66 per cent. of the pharmacopœial amount of camphor. Seven samples of spirit of peppermint containing from 15 per cent. to 80 per cent. of the required amount of oil. Two of tincture of iodine containing 50 per cent. and 71 per cent. of the standard quantity of iodine. Five of spirit of lemon, 2 of which did not contain oil of lemon and 3 much below standard. Nine of spirit of anise containing from a trace to 75 per cent. of oil. Of these, five samples examined by an outside chemist failed to give concordant results.

The comparison is as follows:—

	Board of health.	Outside chemist.
Spirit of Anise, 1	56 per cent.	59.5 per cent.
2	63 per cent.	89.6 per cent.
3	58 per cent.	63.5 per cent.
4	48 per cent.	71.4 per cent.
5	42 per cent.	63.5 per cent.

Note 1. It has been suggested by one member of the committee that the chemists doing this work were prejudiced, one in favor of low results, the other in favor of high results. The high results were reported by a chemist connected with one of our leading schools, with no interest in the cases whatsoever. The results were by refractometer readings. The No. 4 lot reading 71.4 per cent. was made 73.8 per cent. by the separation method. If any explanation is to be sought it might be found in the unintentional mixing of samples.

Several cases were based on variation of tincture of arnica in extractive, although there is no official standard for extractive in arnica flowers. Such a course seems to be questionable for it is well known that drugs bearing the same name have a divergence in amount of extractive, yielded by different samples, obtained from different sources, grown under different conditions. While we do not believe the range is as wide one in the case of arnica flowers, it is sometimes 100 per cent. in other drugs. Then undoubtedly there is as great a variation in the character of the extractive obtained from different lots of the same drug. Observers of experience are aware of the great variation in the alkaloidal drugs grown in different seasons under varying climatic conditions and have noted that the alkaloidal contents bear no relation to percentage of extractive in the alkaloidal drug.

In the case of tincture of arnica the standard was an arti-

ficial one. It was obtained, we understand, by the board chemist percolating a sample of flowers purchased in the open market and using the extractive per cent. of this product as a standard. He should have obtained many lots of flowers from different sources and made many lots of tincture under different temperature conditions and then adopted the range of results for a standard of comparison, instead of using a single percolate or the average of any number of percolates. The range in extractive in tinctures prepared from drugs bearing the same name is very wide and might hint at improper percolation, but we would have to examine the drug



CHARLES H. LAWALL.



A. H. CLARK.

The new Secretary of the Scientific Section. Retiring Chairman of the Scientific Section.

used to assure ourselves of this. J. W. Pollard, of the Massachusetts College of Pharmacy, found the range in extractive in ten samples of tincture of belladonna, obtained from ten retail drug stores, to be from 1.05 per cent. to 3.76 per cent. and the alcohol content to range from 37.5 per cent. to 47.5 per cent. Ten samples of tincture hyoscyamus gave extractive 1.04 per cent. to 4.27 per cent. and alcohol 23.9 per cent. to 40.3 per cent.

Ten samples of tincture of digitalis gave extractive 1.08 per cent. to 3.45 per cent., alcohol 21.6 per cent. to 40 per cent. Ten samples of compound tincture of gentian gave extractive 1.08 per cent. to 5.01 per cent., alcohol 42.6 per cent. to 56.4 per cent. Of the forty druggists, measured by the highest standards, thirty-six would be condemned as selling an adulterated product. In the case of tincture of belladonna and tincture of hyoscyamus we have an official alkaloid standard, and the extractive standard would not stand in law. Assuming that these tinctures were standard in alkaloid, the extractive variation is remarkably extreme.

Too much care cannot be exercised in arriving at conclusions. A sample of elixir of glycerophosphates was found to contain phosphate. The product was cloudy. It cleared with a small amount of hydrochloric acid and again clouded on adding ammonia. Another package from the same lot was bright and clear and gave no indication of phosphate. A portion in a test tube exposed a brief time to the vapor of a water bath became opaque. A few drops of acid cleared it and ammonia reprecipitated it. Investigation showed that the original package complained of had been exposed to a high temperature. If a publication is to be used as a standard by which men are to be condemned as delinquents, that standard should be as nearly above reproach as possible and not glaringly faulty. The National Formulary offers a formula for solution of albuminate of iron and a propaganda has urged physicians to prescribe it in preference to proprietary products.

One pharmacist finds his National Formulary formula calling for 40 grammes of fresh egg albumin and 200 c.c. of solution of oxychloride of iron for 1000 c.c. and claiming that the product contains 0.026 of iron in 4 c.c.

Another having a revised edition with a formula calling for 40 grammes of dry egg albumin, about 12 times as much as called for by the first formula, and 130 c.c. solution of oxychloride of iron, only 13-20 of the amount in the first formula, is told that it too contains in 4 c.c. 0.026 of iron. The health board chemist who accepts this statement without verification, condemns every lot made by the formula.

Assuming the calculated standard for National Formulary solution of oxychloride of iron the first formula would give 0.029 iron in 4 c.c. and the last 0.0183 iron to 4 c.c. Incidentally, the criticisms of different physicians, who prescribed this preparation, are interesting, and examination of products complained of is instructive. Many samples gelatinized on standing a short time. The alcohol content varied 100 per cent. ranging from 5 per cent. to 10 per cent. Iron varied from 0.015 to 0.040. One used caustic potassa instead of caustic soda. Correspondence with some leading pharmacists brings the acknowledgment that they do not make the product by the National Formulary strictly, but use modifications of their own which they find necessary, yet they do not hesitate to put the product out on propaganda prescriptions.

It is gratifying to note that in cases brought to court under the various food and drugs laws, the courts are taking the view that in cases involving matters of opinion competent testimony must prove beyond doubt the accuracy of the prosecution's opinion. Many of our officials entrusted with large powers under the laws are apt to consider that their individual opinion is the law instead of the mere dictum of an individual. These laws are criminal statutes and great care is necessary so as to prevent injustice being done. The de-

fendant is just as much entitled to an opinion as the prosecution and executive officers must understand that their opinion is not necessarily final.

Dr. Rusby's suggestion that facilities be furnished at importing points for the sorting or garbling of crude drugs, etc., is an excellent one and the association should urge the treasury department to furnish such facilities at an early date so as to avoid loss to importers by rejection of drugs on technical grounds.

We have reached a time when we can establish with fair accuracy the fact that numerous drugs are therapeutically inert. While this is not properly within the sphere of the pharmacists, the neglect of the subject of materia medica in our medical schools has forced the study upon the pharmacist. Would it not be well for the association to prepare a list of drugs which are still used by physicians but which we know to be of no value? The subject is almost of importance enough to warrant the appointment of a committee on inert drugs.

Note 2. One member of the committee objects to the suggestion on the plea that the pharmacist's opinion is of little value. The American Medical Association says that echinacea is inert, but many physicians find it of value. How can the pharmacist decide except upon the testimony of physicians of his acquaintance, while their opinion may be offset by that of other men quite as able?

We again urge chemical and wholesale drug houses to drop as far as possible, the use of the misleading term "C. P. chemicals," adopting in lieu thereof the terms "U. S. P." or "Medically Pure."

Co-operative work on the assay of crude drugs and galenic preparations shows that considerable variation is to be expected in the results of different analysts. In view of the fact that the United States Pharmacopoeia is a legal standard we would impress upon the committee of revision the importance of not adopting assay processes in the new Pharmacopoeia, unless they have been thoroughly tried out and proved to give uniform results in the hands of different workers. It is well to pay attention to the physical characters of crude drugs and place intelligent limits on the quality and variety to be used, rather than to depend alone upon a certain standard based on a more or less inaccurate assay process.

Note 3. Some of the committee were fearful that this suggestion might be misunderstood. Anyone who has given the matter careful and unprejudiced attention, must conclude that in its present condition it is unsuited to such an important place as has been given to it. For a single example, take liquor ferri peptorati cum mangano. It calls for ferric peptonate 45 grammes. Iron peptonates in the market have ranged to assay from 5 per cent. to 50 per cent. of iron and to vary exceedingly in solubility. Manganese citrate is also variable. Where is the standard?

Attention is called to the practice of certain manufacturers of offering chemicals, the percentage of purity of which is given "by difference." The chief impurities are determined quantitatively and the chemical itself "by difference." The results are often highly misleading.

Undoubtedly we shall see great improvement in the next Pharmacopoeia. The valuable Digest of Comments issued by the hygienic laboratory under the editorship of Dr. Motter and Mr. Wilbert and the wide range of experience in the drug laboratory with present processes, should place in the hands of the committee of revision more practical data than has hitherto been available.

The suggestion that has been made to issue yearly bulletins of corrections and improvements would seem to be a good one.

Acacia. The powdered gum will almost always reduce an alkaline copper tartrate solution. It should not be rejected on this ground alone. E. H. Gane.

Acetic Acid. Product labeled pure, contained trace of copper and had bad pyroligneous odor. E. L. Patch.

Acid Benzoic. The test for chlorine compounds is not reliable for distinguishing between the natural and artificial. Some samples of artificial acid show up better by this test than the natural. This means that artificial acid is often offered as natural from benzoin. W. L. Scoville.

Acid Boric. Two barrels contained excess of sulphate of calcium. E. L. Patch.

Acid Lactic. The acid offered for technical purposes which is often very impure, sometimes gets into the drug market. The strength is right, but the acid is dark colored and contains much foreign matter. W. L. Scoville.

Acid Oleic, Purified. One shipment contained iron and was very dark colored. E. L. Patch.

Acid Phosphoric. Fifteen samples tested 84.4 per cent. to 85 per cent. W. L. Scoville.

Acid Salicylic. The use of natural acid from oil of birch is increasing. Its color is the distinguishing feature and is intentionally left dark. W. L. Scoville.

Acid Tannic. Crude acid containing traces of gums and resins is frequently offered. It is compact, heavy and usually dark in color. W. L. Scoville.

Acid Tartaric. Several lots testing well chemically were too dirty to use. Their color was bad and they made a very dirty solution. E. L. Patch.

Aconite Root. One lot of spongy root rejected. Assayed only 0.25 aconitine. E. H. Gane.

Alcohol (Ethyl) in Barrels. New process alcohol made from sawdust by fermentation has appeared in the market. One sample tested 96.1 by specific gravity and had a good odor, but contained 6 per cent. of methyl alcohol. The latter is formed in the process. W. L. Scoville. "Commercial" alcohol is being generally supplied and used by the trade for medicinal preparations. Some of it is of very bad odor and poor quality and trouble may result from use of this article unless the trade is more careful. E. H. Gane. Sample of sugar alcohol stood all U. S. P. tests, was practically odorless and was 94.41 per cent. weight strength. E. L. Patch.

Aloes. Moka. It is an amazing fact that American dealers and manufacturers have for years past permitted themselves to be supplied with this substance under the name of socotrine aloes. H. H. Rusby.

Ammonium Carbonate. Usually runs low. Several lots were

below 90 per cent. pure—84.8 per cent. to 88.24 per cent. W. L. Scoville. Tested 32 per cent., 94.5 per cent., 94 per cent., 96 per cent. E. L. Patch.

Apioi. Adulterated with castor oil, glycerol, gurjun balsam, and a residue from the solvent used in extracting the apioi. Apiois may be green, yellow or white. Are completely soluble in 90 per cent. alcohol, ether, chloroform, acetone, benzene, and glacial acetic acid. Should preserve their fluidity when cooled to 5 degrees. Pharmaceutical Era.

Apomorphine Hydrochloride. The United States Pharmacopœia calls for the pure, crystalline salt. It is the custom of some manufacturers to always send the amorphous variety unless the crystalline is specified. Many druggists do not consult their Pharmacopœia and dispense the amorphous as it only costs 1/5 the price of the crystalline. [Some points of difference were given.]

Asafetida. Thirty-eight lots varied from 2.16 per cent. to 61.2 per cent. soluble in alcohol. One lot gave over 50 per cent. of ash and several lots above 40 per cent. W. L. Scoville. The high percentage of impurity in the commercial article renders necessary a process of purification. One lot of poor grade testing only 40 per cent. soluble in alcohol with over 30 per cent. of ash, was purified and the finished product showed ash 3.17 per cent., alcohol soluble matter 73.71 per cent. E. H. Gane. The difficulties of the year in relation to asafetida have been much greater than those connected with any other article. [Some of those were given.] H. H. Rusby.

Aspirin. Ten samples melted at 130 degrees to 136 degrees C. W. L. Scoville.

Balsam Peru. The impropriety here is in the marketing of a purely fictitious manufactured product, an imitation of the natural one. [This feature was enlarged upon at length.] H. H. Rusby.

Benzoin. Benzoin runs fairly even 70.8 per cent. to 87.5 per cent. soluble in alcohol. E. H. Gane. One sample contained 11.1 per cent. ash and only 72 per cent. alcohol soluble. The impurities were sand and twigs from the tree. W. L. Scoville.

Belladonna Leaf. One bale rejected owing to age and mildew assayed 0.23 per cent. alkaloids. E. H. Gane. Thirteen bales contained an excess of stems. Leaf portion assayed 0.298 per cent. and the stem portion 0.175 per cent. C. E. Vanderkleid.

Bismuth Salicylate. Nearly always contains some subnitrate. Rep. de Pharm.

Buchu. The demand for buchu, U. S. P., has exceeded the supply and the price has been excessively high. This has stimulated the offering of long buchu, which is not recognized by the Pharmacopœia. The admission of long buchu to the Pharmacopœia, and its strict regulation are loudly called for by the conditions described. H. H. Rusby.

Calcium Carbonate. Most lots showed traces of iron and aluminum. One lot was off color, very dirty, showed presence of iron, aluminum, phosphates and dirt. E. L. Patch.

Camphorated Oil. Seven samples assayed from 4 per cent. to 15 per cent. camphor. M. S. E.

Spirit of Camphor. From 7 per cent. to 8.2 per cent. camphor. M. S. E.

Cannabis Indica. This drug continues of great interest. Supplies have continued scarce, and prices high, during the entire year. This has stimulated the importation of large amounts of the drug which cannot be regarded as the U. S. P. article. H. H. Rusby. Ether soluble resin, 12.1 per cent., 11.1 per cent. E. L. Patch.

Cantharides, Russian. 0.4 per cent., 0.4 per cent., 0.4 per cent., 0.48 per cent., 0.44 per cent., 0.5 per cent. E. L. Patch.

Carbon Papers. Nine blue papers showed arsenic varying from 1/250 grain to 2.15 grains per square yard. Two samples were arsenic free. One purple paper had 14 grains to the square yard. One had 1 grain and 6 were arsenic free. Five black papers showed 1/200 grain to the square yard and 2 none. One red paper gave 1/15 grain to square yard. One none. Ernest O. Cook.

Caramel. Adulterated with ammonium carbonate and sodium carbonate. Sometimes contains 50 per cent. sodium carbonate crystals. P. Carles.

Cherry Laurel Water. Assays from 0.03 per cent. to 0.1 per cent. of hydrocyanic acid. E. L. Patch.

Cochineal. The "silver" variety is gradually disappearing and better grades are more easily obtainable. The "silver" variety had a high ash, the characteristic appearance being due to loading. Two samples of powdered purchased in the open market yielded only 3.24 per cent. and 4.90 per cent. of ash where formerly 20 per cent. to 30 per cent. was common. E. H. Gane.

Colchicum Seed. One sample contained but 0.36 per cent. colchicine. E. H. Gane. One lot assayed 0.52 per cent. E. L. Patch.

Collodion. Two lots contained only 75 per cent. of the official amount of soluble gun cotton. E. L. Patch.

Colocynth. Three lots contained ground seeds. H. H. Rusby. Most of the product sold contains seed as well as pulp and prosecutions have been brought on this account. E. H. Gane.

Coto. This drug continues unobtainable, according to the statement of importers. None has been received in the port of New York for several years. Para coto has been almost unobtainable and almost everything that has been offered under this name has been spurious, eight different barks having appeared under this name during the year. H. H. Rusby.

Cream of Tartar. Two samples offered as strictly U. S. P. tested 96.48 per cent. and 98.72 per cent. only. E. H. Gane.

Cresol. One lot rejected as it contained a large percentage of phenol. E. H. Gane.

Cubeb. The official standards for this article should be carefully revised, after a thorough investigation of the relative values of the different forms of the drug. H. H. Rusby.

Digitalis. Increasing doubt is being cast upon the claim that a second year leaf is in any way superior to that of the first year. H. H. Rusby. It has been well determined that leaves of first year growth are equal to or better than those of second year growth, and that a well cured drug does not deteriorate. (See Cæsar and Lortez, in Chemist and Druggist.) Assays of digitalis powder over eighteen months showed no appreciable change. E. L. Patch.

Echinacea. Three lots were found to consist of the roots of some species of brauneria other than brauneria pallida which is the source of true echinacea. Another lot consisted of the roots of rudbeckia fulgida. Oil, Paint and Drug Reporter.

Elixir Calisaya. N. F. Twenty-five samples from retail stores: Alkaloids, 0.042 to 0.313 per 100 c.c. Color from colorless to nearly black. In several a heavy precipitate. Roy A. Peckham.

Ergot. There has been considerable trouble during the year from the offerings of ergot of poor quality. H. H. Rusby.

Ether, U. S. P., 1890. Ether that has stood for some time may contain hydrogen dioxide, supposed to be developed by action of ozone, formed by evaporation of ether, upon the water present. Drug Topics.

Formaldehyde. Often runs a little low owing perhaps to partial polymerisation. Several lots tested 37.2 per cent. to 38 per cent. W. L. Scoville.

Frangula. A spurious bark, apparently a species of rhamnus, has been found mixed in considerable quantity with frangula, and should be carefully watched for by dealers. The bark, in quills of the same size, is much thicker than that of frangula. It is rougher on the surface, of a more dull gray, has a shorter fracture but the resemblance to frangula in some of its forms is rather close. H. H. Rusby.

Ginger Root. Jamaica ginger gave following percentages of alcoholic extract: 6 per cent., 4.6 per cent., 3.3 per cent., 3.5 per cent., 3.3 per cent., 3.8 per cent., 3.8 per cent., 5.9 per cent., 4.6 per cent. E. L. Patch.

Glycerin. Manufacturers pay more attention to getting a colorless glycerin than to purity. In consequence most of the glycerins will develop a bad odor in acid mixture from the fatty acids and aldehydes contained in them. W. L. Scoville. Five c.c. of glycerin with 5 c.c. of water and 1 c.c. of diluted sulphuric acid, shaken and set aside for fifteen minutes should not develop a disagreeable odor. A. B. Lyons.

Goldenseal. The small amounts obtainable test high in alkaloid. Seven packages assayed 2.96 per cent., 3.01 per cent., 3.26 per cent., 3.3 per cent., 2.9 per cent., 3.5 per cent., 2.72 per cent. respectively. E. H. Gane. 3.02 per cent., 3.2 per cent., 3.4 per cent. E. L. Patch.

Gum. Advertised as a superior product for tablet making and other pharmaceutical uses. Proved to be white potato dextrin. E. L. Patch.

Heroin. Variations in melting point of 10 degrees to 15 degrees are found in heroine and heroine hydrochloride. W. L. Scoville.

Hydrogen Dioxide. Thirty-two samples ranged in strength from 0.63 per cent. to 3.45 per cent. Twenty-nine more were below 3 per cent., three less than 2 per cent., and two others less than 1 per cent. Solids ran as high as 0.366 per cent. Eighteen exceeded the limit for acidity. Twenty-four contained acetonilide. N. A. R. D. Notes.

Hyoscyamus. One sample of annual leaf assayed 0.023 per cent. alkaloids. E. H. Gane. 0.057 per cent., 0.097 per cent., 0.111 per cent. E. L. Patch.

Insect Powder. Stems are largely used for powdering and the claim is made that these are as active as the flowers. E. H. Gane. Considerable quantities of insect flower stems continue to arrive. It seems impossible that they could be used for any other purpose than that of substituting or adulterating insect flower powder. H. H. Rusby.

Ipecac. 2.4 per cent., 1.97 per cent., 2.26 per cent., 1.97 per cent., 2.4 per cent., 2.28 per cent., 2.33 per cent., 2.18 per cent., 2.43 per cent. E. L. Patch.

Irota Lactate. One sample was only partially soluble and contained much ferric lactate. E. H. Gane.

Jaborandi. 0.26 per cent., 0.165 per cent., 0.3 per cent., 0.2 per cent. E. L. Patch.

Jalap. The poorest lot offered tested 6.75 per cent. and the best 20.06 per cent. resin. E. H. Gane.

Total resin 3.05 per cent. Ether soluble 1.2 per cent.

Total resin 11.85 per cent. Ether soluble 1.1 per cent.

Total resin 12.2 per cent. Ether soluble 1.53 per cent.

Total resin 9.78 per cent. Ether soluble 1.18 per cent.

Total resin 7.4 per cent. Ether soluble 0.95 per cent.

Total resin 13.84 per cent. Ether soluble 1.24 per cent.

E. L. Patch.

Lemon Extract. Two lots were free from oil. Others 0.6 per cent. upward. M. S. E.

Labella Herb. 0.6 per cent. alkaloid. E. L. Patch.

Magnesia, Calcined, Magnesia labelled "For technical purposes only" but sent for medicinal use, assayed 92.2 per cent., 89.7 per cent., 86.6 per cent., 95.9 per cent. and 93.1 per cent. respectively. E. H. Gane.

Magnesium Sulphate. Dried, tested 95 per cent. monohydrated. E. L. Patch. The dried salt if monohydrated should contain 87 per cent. of anhydrous salt, if dihydrated 77 per cent. M. C. W. had 67.2 per cent. anhydrous, 7.29 per cent. water. P. W. R. 64.93 per cent. anhydrous, 14.43 per cent. water. Merck 54.27 per cent., 26.16 per cent. water. W. A. Puckner and L. A. Warren.

Methylene Blue. Contains 0.1 per cent. to 1.0 per cent. ash. Zinc is usually present. W. L. Scoville.

Mustard. The presence of charlock in mustard used as a condiment is very common. H. H. Rusby.

Myrrh. Is 30.1 per cent. to 42 per cent. soluble in alcohol. W. L. Scoville.

Nux Vomica. One lot of powdered assayed only 1.19 per cent. of strychnine. E. H. Gane. 1.26 per cent., 1.22 per cent., 1.268 per cent., 1.23 per cent., 1.22 per cent. E. L. Patch.

Oil of Anise. One lot of Manila oil proved of excellent quality, giving the following results: Congealing point 15 degrees: C. Sp. gr. 0.975. Soluble in all proportions in 90 per cent. alcohol. E. H. Gane.

Oil of Capeput. Lots meeting other U. S. P. requirements are low in gravity, running 0.911 or under instead of 0.915 to 0.925. E. L. Patch.

Oil of Cassia. Lots sold as redistilled gave 11 per cent. residue and lots marked lead free, not redistilled, only 11.5 per cent. E. L. Patch. Cassia oil and cinnamon oil are not alike. The names should not be used interchangeably. Oil of cinnamon is distilled from scrap bark and if pure may contain 80 per cent. to 90 per cent. of aldehyde. It is often adul-

terated with leaf oil. Oil of cassia is distilled almost entirely from the leaves and contains from 75 per cent. upward of aldehyde. Shipped in lead containers it often contains lead. American Druggist.

Oil of Citronella. Frequently adulterated with turpentine and petroleum oil. American Druggist.

Oil of Eucalyptus. One sample offered contained only 40 per cent. of eucalyptol. E. H. Gane.

Oil of Fennel. Congealing point, +6 degrees C., +3.5 degrees C., +5 degrees C., +5.50 degrees C., +6 degrees C., +6.5 degrees C., -16 degrees C., +3 degrees C., +2.85 degrees C. E. L. Patch. The requirements of +5 degrees C. is generally agreed to be too severe. Dodge & Olcott.

Oil, Linseed. Is commonly extended with corn oil. Soya bean oil has been used but to much less extent. E. H. Gane.

Olive Oil. Various samples were mixtures of olive oil and cottonseed oil or were all cottonseed oil. M. S. B.

Oil of Origanum. It is stated in N. A. R. D. Notes that no oil of origanum, genuine, is obtainable, and oil of red thyme is offered instead. E. L. Patch.

Oil of Peppermint. Marked "Twice Rectified" "U. S. P.," "Redistilled." Not always colorless. One lot gave more than opalescence with four parts of 70 per cent alcohol. Optical rotation -25.7 degrees to -27.4 degrees; sp. gr., 0.9018 to 0.9045; menthyl acetate, 7.08 per cent. to 7.86 per cent.; total menthol, 55 per cent. to 60.3 per cent. E. L. Patch.

Oil of Pine Needles. There is practically no oil of pinus sylvestris on the market. American Druggist.

Oil of Thyme Flowers. Guaranteed to be genuine. Sp. gr., 0.888 (U. S. P. 0.9 to 0.930); optical rotation, -1.2 degrees (U. S. P. up to 3 degrees); phenol, 22.5 per cent. E. L. Patch.

Paw Paw. Paw paw preparations vary greatly in digestive activity. W. L. Scoville.

Pepsin. Samples on the market with digestive power of 1-9000, but they contain a large proportion of inorganic salts. Probably these salts are a large factor in the activity of the pepsin. W. L. Scoville. Three lots labeled 1-6000 were 1-2000. One lot labeled 1-3000 was 1-1000. Several other lots were weaker than labeled. Oil, Paint and Drug Reporter.

Peroxide Creams. Of twenty-one brands only three contained hydrogen dioxide and in a majority of cases apparently no dioxide had ever been present. American Druggist. The Peroxide Specialty Company, Cincinnati, was convicted and fined for shipping such a product. Pharmaceutical Era.

Petrolatum Liquidum. It is difficult to obtain meeting the U. S. P. requirements for sp. gr. of 0.870 to 0.940. A few lots run as follows: 0.860, 0.875, 0.876, 0.877, 0.861, 0.877. E. L. Patch.

Phenacetin. Melts at 131 degrees to 135 degrees C. W. L. Scoville.

Pills, Cathartic Compound. These and other black pills labeled gelatin coated were coated with lamp-black and glucose. Are being offered at wholesale below the bare cost of material. N. A. R. D. Notes.

Pinkroot. Fifty-seven samples were obtained from various sections of the country and carefully examined, compared with four plants of true spigelia from the bureau of plant industry, cross sections of the rhizomes and roots being made and compared microscopically. Specimens found to be true pinkroot, none, although many were up to the U. S. P. description. C. E. Sanders.

Potassium Carbonate. Usually contains 8 per cent. to 15 per cent. of water. Since the Pharmacopoeia directs that it is to be dried before being weighed for titration, salt containing as much as 15 per cent. of water is sold as U. S. P. W. L. Scoville. One lot 0.7 per cent. chloride; dirty. E. L. Patch.

Potassa—Highest Purity. Potassium hydroxide runs 85 per cent. to 89 per cent. or 90 per cent. strength. W. L. Scoville.

Potassium Nitrate, U. S. P. Conviction and fine for shipping ten barrels containing 7 per cent. sodium chloride. U. S. P. should be 99 per cent. pure. Apothecary.

Precipitated Ferrous Phosphate. Dispensatory states that it may assay 44 per cent. ferrous phosphate. Five lots carefully made assayed 63.5 per cent., 65.95 per cent., 69.74 per cent., 71 per cent., 80.34 per cent., 86.8 per cent. Other lots in market, 42.34 per cent., 45 per cent., 49.98 per cent., 44 per cent. E. L. Patch.

Rhubarb. American rhubarb has been offered to the trade. The root is of a poor, grayish color, very spongy and with little if any of the characteristic rhubarb odor. Microscopically its structure is similar to the imported, but it is distinguished by the small amount of calcium oxalate crystals present. The powder is of a fair color. E. H. Gane.

Soap, Castile. The powdered contains 2.5 per cent. to 5 per cent. of water. The cake 11 per cent. to 26 per cent. Much offered as castile soap is made from animal fats. W. L. Scoville. Much of the so-called "pure olive oil soap" contains a large proportion of coconut oil soap. This is easily recognized by the characteristic taste. E. H. Gane.

Soda, Caustic. Runs from 88 per cent. to 98.6 per cent. W. L. Scoville.

Sodium Carbonate. Varies greatly in the amount of water which it contains. W. L. Scoville.

Sodium Glycerophosphate. Is often alkaline in reaction to a very marked extent, enough to give trouble in preparations containing it. W. L. Scoville.

Sodium Phosphate. "Dried, purified," contained 10 per cent. sulphate, 1.5 per cent. water. "U. S. P.," contained excess of sulphate and chloride, 0.5 water. E. L. Patch.

Sodium Sulphate, Dried. Tests satisfactory—nearly anhydrous. E. L. Patch.

Stramonium. Two lots of domestic assayed 0.17 per cent. and 0.14 per cent. alkaloids. E. H. Gane. 0.198 per cent., 0.21 per cent., 0.41 per cent., 0.28 per cent. E. L. Patch.

Turpentine. Adulterated and face have resulted. To identify the copal the liquid is distilled up to 190 degrees C. and the acid and bromide numbers of the residue determined. Pharmaceutical Era.

Umbelliferous Cremocarps. Caraway, anise, fennel, etc., etc. This class of official fruits is extremely liable to contamination with large amounts of stems, gravel, sand, dust, weed seeds and other impurities. H. H. Rusby.

Uva Ursi. The addition of cut stems to this drug seems to

have nearly ceased, a result apparently of the persistent rejection of the article when so treated. H. H. Rusby.

Zinc Oxide. Difficult to obtain strictly U. S. P. The usual impurities are lead, antimony and iron in excess. Seven lots offered as U. S. P. assayed 96.4 per cent., 98.14 per cent., 99.09 per cent., 96.1 per cent., 95.8 per cent., 97.2 per cent. and 95.3 per cent. zinc. E. H. Gane.

L. D. Havenhill, of Lawrence, Kan., in presenting the report of the committee on the United States Pharmacopoeia, said that the work of the committee had been heavily handicapped by the death of Mr. Hallberg and the resignation of Mr. Beringer.

The following paper was presented by its author:

The Physical and Chemical Constants of Several Unusual Fixed Oils.

By CHARLES H. LAWALL.

The present-day tendency in manufacturing operations is toward the utilization of materials which were formerly discarded as valueless and our knowledge is constantly being enriched by the publication of facts concerning substances which are being produced as by-products and for which appropriate uses must be found.

Three rather uncommon fixed oils have come into my possession recently which illustrate this modern tendency in an excellent manner. All of them were received from Mr. W. J. Warner, superintendent of a glycerin refinery at Berkeley, Cal.

Silkworm Oil. Oil from silkworm chrysalids has been mentioned in literature several times as a commercial possibility. In the *Journal of the Society of Chemical Industry*, volume xxx, number 9, page 555, it was stated that in the ten years preceding 1906 there were produced as a by-product of the silk industry in Italy alone, 32,000,000 pounds of the chrysalids, which were practically all used for fertilizing purposes. As they contain about 20 per cent. of fixed oil obtainable by expression or the use of solvents and as the residue after the extraction of the oil would possess a manurial value equal to or greater than the original material, the probability of such an oil becoming an article of commerce is clearly evident.

The sample of silkworm oil in my possession has a brownish yellow color and a somewhat disagreeable odor. It has a specific gravity of 0.9221 at 15° C., an acid number of 17.76, a saponification number of 202.46 and an iodine value of 142.2. The refraction figure on the Zeiss butyro-refractometer was 70° at 25° C.

Tea Seed Oil. Tea seed oil, as produced and used for edible and manufacturing purposes in Japan, is not derived from *thea sinensis*, the species which produces commercial tea leaves, but from *thea sasanqua*, a plant of totally different character cultivated only for its seed. This oil, when obtained by expression, contains such notable quantities of saponin as practically to unfit it for edible purposes, though when made by extraction with volatile solvents it is practically free from that irritating substance.

The exact origin or method of preparation of the sample in my possession is unknown. Its properties are as follows: Specific gravity, 0.9165 at 15° C.; acid number, 1.52; saponification number, 196.55; iodine number, 86.7; butyro-refractometer reading, 62° at 25° C.

Grape Seed Oil. Grape seed oil has been produced for some time as a by-product of the wine industry in some parts of Europe, but until recently no attempt was made in this country to utilize the seed. Several years ago the production of this oil was begun in connection with the seeded raisin industry and the output of oil was reported last year to have reached over 300,000 pounds. The sample submitted was a bland, pleasant nutty flavored oil of bright sparkling appearance, showing the following characteristics: Specific gravity, 0.9215 at 15° C.; acid number, 100.10; butyro-refractometer reading, 71° at 25° C.

The foregoing data are submitted as a contribution to the literature of these respective oils.

Among the other papers read or presented were the following:

"The Scope of the Foreign Pharmacopœias," by M. I. Wilbert, of Washington. An analysis of the contents of the recently published pharmacopœias had been made and the scope and general requirements of these books compared. The need for greater uniformity was discussed and some of the agencies that were being developed in favor of international requirements were referred to.

"The National Formulary and Its Relation to the United States Pharmacopœia," by W. C. Alpers, of New York.

"The Pharmacopœial Standard for Desiccated Thyroid Glands," by Reid Hunt and Atherton Seidell, of Washington. The parallelism between the iodine content and physiological activity of thyroid having been established, the authors called attention to the advantages of the method of Hunter (*Journ. Biol. Chem.* 7, 321, 1910), over the older Baumann method for the estimation of the organically combined iodine of thyroid, and suggested the incorporation of the Hunter method in the pharmacopœial description of this drug. On the basis of the analysis of a large number of commercial desiccated thyroid samples, a standard iodine content of 0.2 per cent., with a maximum variation of 0.03 per cent. above or below this figure was recommended. The limit for moisture was placed at 6 per cent., and that for ash at 5 per cent. Attention was called to the improbability of the claim that some recently prepared thyroid preparations contained the thyroid iodine compound in a super-active form.

"The Preparation, Quality and Testing of Quinine Tannate," by W. A. Puckner and L. E. Warren. Quinine tannate had been introduced into medicine many years ago because it exhibited the alkaloid in a comparatively tasteless form. It was now official in many pharmacopœias, the alkaloidal requirement in none being less than 30 per cent. The therapeutic efficiency and reliability of quinine tannate have been seriously questioned. Evidence has been adduced on both sides of the controversy and the question was still an open one. The council on pharmacy and chemistry of the American Medical Association having decided to consider quinine tannate, the association's chemists had taken up the examination of the commercial product and also had prepared the substance by several methods. From the results of the experimental work in preparing the salt, it had been concluded that quinine tannate containing over 30 per cent. of alkaloid might easily be prepared, but that the methods of preparation prescribed in the pharmacopœias yielded products containing somewhat less than this quantity of alkaloid. To obtain products of even an approximately constant composition it was necessary to employ definite proportions of tannic acid and of quinine. Four commercial specimens of quinine had been examined. Three of these had been found to be of good quality, although two contained slightly less than 30 per cent. of alkaloid. The remaining specimen contained about 9 per cent. of uncombined alkaloid, namely, about 26.5 per cent. of the total alkaloid present was found in the uncombined state.

"Standardization of Solutions for Alkaloidal Assay," by A. B. Stevens and A. F. Schlichting, of Ann Arbor.

"Methods of Aconite Assay," by A. B. Stevens and S. Greenbaum, of Ann Arbor.

"The Assay Processes of the United States Pharmacopœia," by A. R. L. Dohme, of Baltimore.

"Some Queries on Alkaloidal Assaying," by W. A. Pearson, of Philadelphia.

"A Method of Assay for Fluidextract of Sanguinaria," by H. B. Meade, of Philadelphia. Blome's modification of Schlotterbeck's method for the drug was adapted to the fluidextract. It depended on the extraction of the alkaloids and ether-soluble principles with ether, separating the alkaloids from other extractive by means of excess of standard acid, precipitating the alkaloid with Mayer's reagent, and titrating the acid unused by the alkaloid with N/50 alkali.

"On the Crystalline Alkaloid of Calycanthus Glauca (fourth paper)," by H. M. Gordin, of Chicago.

"Gelsemium Alkaloids," by L. E. Sayre, of Lawrence, Kan. The relation (physiological and chemical) of gelsemine and gelseminine and a third alkaloid for which the author suggested the name gelsemoidine was discussed. The method of extraction and separation of these alkaloids was brought out.

"The Ash Content of Drugs," by M. I. Wilbert, of Washington. The possibilities and the limitations of the ash content of drugs as an indication of adulteration were discussed, as were the precedent established by our own and by foreign pharmacopœias; the variations existing at the present time, and the need for adopting a definite method of procedure with some of the methods that have been proposed.

"Physiological Drug Testing and the United States Pharmacopœia," by Charles C. Haskell.

"The Medullary Ray Cells in Rhamnus Purshiana," by Henry Kraemer, of Philadelphia.

"A Note on Capsicum," by Wilbur L. Scoville, of Detroit. There was great variation in the capsicum of the market.

Pungency was a question of cultivation as well as of variety. A simple test for quality was given.

"The Permanency of Some Astringent Preparations," by Wilbur L. Scoville. Twenty fluidextracts of drugs containing tannin had been compared during three years. Permanency had been found comparable in part to alcohol strength. The desirability of strongly alcoholic menstrua in drugs of this class was emphasized. Loss of astringency was not always shown by precipitation. Results were tabulated.

"Combretum Sundiacum," by I. V. S. Stanislaus and H. C. Wood, Jr., of Philadelphia.

"Calcium Hydroxide," by Philip Asher, of New Orleans. In a series of experiments extending over seven months it had been shown that calcium hydroxide kept in an ordinary stoppered bottle lost very little oxygen. From a chemical viewpoint this was of interest in that the theory regarding the rapid decomposition had been largely exaggerated. The sample exposed during the greater portion of the time during the wet season.

"Anethol Versus Oil of Anise," by Otto Raubenheimer, of Brooklyn.

"On the Keeping Quality of Some U. S. P. Volumetric Solutions," by A. H. Clark, of Chicago. In this paper was given the conclusions drawn from some experiments extending over a period of nearly four years, reports of which have been given in two previous papers appearing in the Proceedings for 1909 and 1910.

"Chinese Opium Pills and Tablets," by Albert Schneider, of San Francisco.

"Some Experiments on the Rate of Disintegration of Pills," by L. D. Havenhill and A. E. Stevenson.

"Proposed Standard for Camphor and Spirit of Camphor," by L. D. Havenhill and F. L. Rowland.

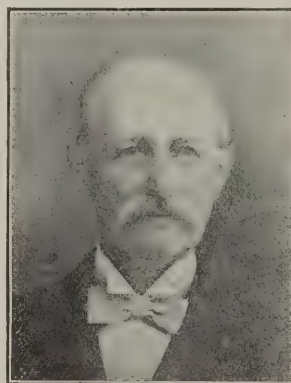
"Notes on the Keeping of Sweet Spirit of Niter and a Suggestion for Change in Title," by Linwood A. Brown, of Lexington, Ky.

Officers were elected as stated on page 492, and after a many-sessioned meeting, the section adjourned.

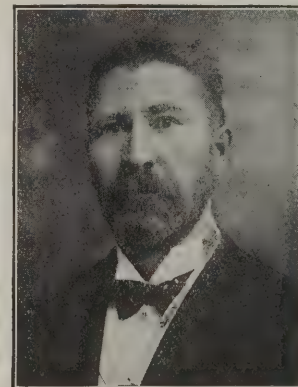
HISTORICAL SECTION.

Friday Afternoon, August 18th.

On the return trip from Plymouth Friday afternoon, the first session of the section on historical pharmacy was held in the main saloon of the boat "Betty Alden," with Chairman J. L. Lemberger, of Lebanon, Pa., in the chair. Secretary Raubenheimer, was on hand, as was Historian



J. L. LEMBERGER.
Retiring Chairman of the
Historical Section.



OTTO RAUBENHEIMER.
New Chairman of the
Historical Section.

Kremers. In spite of various kinds of noises, including that made by the boat, another variety caused by the romping of children on the deck overhead, thunder, screams of women as lightning played, and the conversation of members and others on the outskirts of the crowd, who being unable to hear what was going on, seemed to see no reason why they should permit others to do so, the session was an interesting one to those who really desired to participate in its proceedings.

Addresses were made by the respective officers, and John F. Hancock, of Baltimore, presented some letters and other documents of great historical value to the associa-

tion. Among the latter were announcements of the meetings of 1866 and 1871, sent out by Secretary Maisch.

An unusually interesting paper in which some of the personal experience with and recollections of New York pharmacy and pharmacists of the forties and fifties of the last century, by its author, Ewen McIntyre, was read by Thomas F. Main.

Francis B. Hays, of New York, presented a scrap-book which he had entitled "Hallbergana," in which had been gathered clippings from all or nearly all the pharmaceutical journals of this country, and some from abroad, as well as some medical journals, containing reference to

portance to druggists of seeing that they use none other than accurate weights and measures.

H. B. Guilford, of Rochester, president of the National Association of Retail Druggists, having dropped into the meeting, was called to the platform and asked to address the members. In responding, Mr. Guilford spoke of the desirability of united action on the part of druggists, and extended an invitation to the members of the American Pharmaceutical Association to attend the meeting of his organization to be held at Niagara Falls, September 11th and succeeding days.

The general session then adjourned.

Friday Afternoon, August 18th.

At the general session held on the boat Friday for the purpose of choosing a place of meeting next year, J. P. Remington introduced a resolution of confidence in Dr. Harvey W. Wiley and those who were working with him for an honest enforcement of the food and drugs act, and requesting President Taft to take such action as would insure the continuance of a proper administration of that law. This resolution was adopted without a dissenting vote.

FINAL GENERAL SESSION.

Saturday Forenoon, August 19th.

Many ragged ends of business had to be picked up and put into shape and much new business had to be rushed through at the concluding general session held Saturday forenoon, with President Eberle in the chair.

Dr. Horace D. Arnold, of Boston, a delegate from the American Medical Association, who had been unable to attend the first general session when delegates had been introduced, was present and made a short but felicitous address. He spoke of the high regard in which the leading pharmacists of Boston were held by the medical profession and expressed gratification at the fact that the



JOHN URI LLOYD.

The Association's Unofficial Historian.



EDWARD KREMERS.

The Association's Official Historian.

the life and death of the late C. S. N. Hallberg. There were also bound in as part of this book many letters from members of the association in which characteristic anecdotes of the deceased member were related, as well as other documents of a germane nature, including a pamphlet containing the constitution and by-laws of the original "Diastase Club of Chicago." Mr. Hays read from the book a letter from the late J. Winchell Forbes on Mr. Hallberg's death, in which the author said that he felt that his life was soon to end and expressed some views concerning the hereafter.

On motion of H. V. Army, of Cleveland, the thanks of the section were tendered to the compiler for his interesting and valuable collection of "Hallbergana."

A. W. Miller, of Philadelphia, presented an interesting paper on the Island of Socotra, from which Socotrine aloes is supposed to come, but Mr. Miller showed that it was extremely doubtful whether any aloes at all had been exported from the island for a long time.

Officers were elected (see page 492) and the section adjourned to reassemble in the evening to hear Edward Kremers deliver an illustrated address on the "Pharmacist in Literature," which proved one of the most enjoyable features of the meeting.

ADJOURNED GENERAL SESSIONS.

Wednesday Noon, August 16th.

For a few minutes about noon Wednesday the section on education and legislation gave way to the general session, which held an adjourned meeting at which President Eberle presided.

H. P. Hynson's report as chairman of the committee on national legislation was referred to the section on education and legislation.

E. M. Houghton, of Detroit, chairman of the committee on physiological assay, was not present. His report was presented by title and referred to the scientific section.

A telegram of greeting from ex-President Oscar Oldberg, of Chicago, in which he stated that rheumatism prevented him from attending the meeting, was read, and the secretary was instructed to forward a suitable reply.

Another committee chairman, Henry Kraemer, of Philadelphia, was unable to be at the Boston meeting, so his report on weights and measures was read by C. E. Caspari, of St. Louis. In this report reference was made to the growth of the use of the metric system, and the im-



H. B. GUILFORD.

President of the N. A. R. D., who was welcomed to the meeting and made a short address.



LEWIS C. HOPP.

An ex-President of the Association who is a faithful attendant at its meetings.

association had thought well enough of one of them to elevate him to its highest office. He believed the time had come for pharmacists and physicians to unite in educating the general public to an appreciation of many things connected with medicine and hygiene.

It was announced that W. B. Day, of Chicago, had been appointed to succeed the late C. S. N. Hallberg on the national syllabus committee, and that H. L. Taylor had been reappointed a member of the same.

Vice-President Day took the chair while G. M. Beringer presented the report of the committee on president's address. In brief, this report recommended that the idea of co-operation between the American Pharmaceutical Association and the National Association of Retail Druggists be endorsed; that the general secretary of the association be also the editor of the association's journal, provided that a suitable man to fill the dual office were at all times available; that steps be taken to devise a model law relating to boards, pedlers, liquors and narcotics; that the efforts of the association on behalf of pharmacists in the public service be continued; that the association reiterate its adherence to the principles of the food

and drugs act of June 30th, 1906; that the association endorse the idea that the sale of all medicines should be under the control of the several boards of pharmacy, respectively; that the association favor a department of health, with a bureau devoted to pharmacy; that the pure drug laws of the several States be harmonized, and that their administration be delegated to pharmacists; that while the idea of a recipe book to be issued by the association was a good one, the work involved in preparing its contents was too onerous to be undertaken just now; that the syllabus be perfected and urged for adoption by the colleges; that the American Pharmaceutical Association should have delegates at the congress of applied chemistry; that the question of patent and trade-mark reform be brought before the congress of applied chemistry; that the matter of reorganizing the association receive proper consideration; and that the names of candidates for the presidency be sent to electors on separate slips, so as not to give any candidate the advantage of heading the list. The report was received and its recommendations adopted.

Mr. Remington reported that he had received a communication from Albert Schneider, of San Francisco, regarding the proposed meeting in that city in connection with the Panama Canal celebration in 1915, of the International Congress of Pharmacy. A committee of three is to be appointed to take cognizance of this matter and report at a future meeting of the association.

IDENTIFICATION OF GROWING PLANTS.

William Mansfield stated that he had collected and put on exhibition in the lobby specimens of fifty-five different plants which grow in the vicinity of Boston, and had through the courtesy of the representatives of three New York drug journals present been able to offer an annual subscription to one of these journals to the member identifying the largest number of the specimens, and subscription to the other two as second and third prizes. He announced that C. H. LaWall, of Philadelphia, had captured first prize by naming fifty-four of the specimens, and that E. V. Howell, of Chapel Hill, N. C., and L. E. Warren, of Chicago, had taken the other two prizes. Incidentally it may be stated that the one specimen which baffled Mr. LaWall's keenness was a common field plant which is cultivated on a large scale in the West, being no other than alfalfa. The specimen found near Boston, however, did not present all the characteristics of the Western variety, especially in regard to size.

On motion of Mr. Remington the thanks of the association were tendered to Mr. Mansfield, and he was requested to continue his efforts along this line at future meetings; the motion also included thanks to the journals.

Mr. Hynson claimed the credit for Baltimore for having first made, in 1898, such an exhibition as Mr. Mansfield had prepared, and as had been made by President Rusby at the Richmond meeting last year, but Mr. Whelpley recalled that Mr. Mohr had made such an exhibition ten years before the Baltimore meeting.

Council minutes were read by Secretary England. The council did not approve the creation of a new section, to be known as the section on United States Pharmacopœia, as had been proposed by ex-President Oldberg, but had taken steps to provide for joint meetings of the association's two committees on the Pharmacopœia and on the National Formulary.

APPROPRIATIONS AND PUBLICATIONS.

The salary of Secretary-Editor Beal had been fixed at \$3,000, and an additional \$750 was allowed for help. The headquarters of the secretary will be at Scio, Ohio.

Letters of greeting had been sent to ex-President Dohme, and to ex-Treasurer Sheppard, who were prevented by sickness from attending the meeting.

The sum of \$5,000 was appropriated for the use of the new *Journal of the American Pharmaceutical Association*.

The salary of Treasurer Whelpley had been increased from \$750 to \$1,000, and that of Mr. Diehl, reporter on the progress of pharmacy, from \$750 to \$1,200.

The minutes of the council meetings were approved by the general session unanimously, without debate.

It was announced that the Hallberg memorial fund amounted to \$4,400, which was sufficient to pay the balance due on the Hallberg house and lot at Chicago, and leave something for Mrs. Hallberg and her young son.

J. W. England, who has been acting as editor of the *Bulletin* since the death of Mr. Hallberg, reported that

he had issued 3,000 copies of that publication each month and had not spent all of the \$2,000 which had been appropriated for his use.

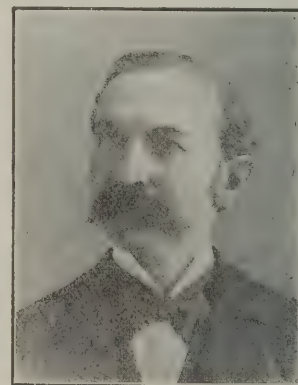
The *Bulletin* will continue to appear monthly until the end of the year, when it will give place to the *Journal*.

The thanks of the association were tendered to Mr. England for stepping in and filling the office of editor made vacant by the death of Mr. Hallberg, and also to Mr. Day for his assistance in getting out one issue before Mr. England's services had been secured.

George F. Payne, of Atlanta, reported for the committee on pharmacists in the public service. Many of these pharmacists had joined the association in the belief that their status would be improved through the efforts of the association. Hospital stewards in the army did not re-



J. W. ENGLAND,
Secretary of the Council;
Acting Editor.



JAMES M. GOOD,
A former President, now
Vice-Chairman of the Council.

ceive as good pay as was given to men of equal rank in other branches of the service.

Greetings were received from ex-President Patton, of York, Pa., "Uncle John," and the secretary was instructed to respond in a fitting manner.

EBERT PRIZE AWARDED.

The committee on Ebert prize reported that it had experienced much difficulty in coming to a decision, but had finally agreed to recommend that the prize for the best paper submitted to the association last year be awarded to W. A. Puckner and L. E. Warren for their studies on the composition of strychnine arsenate and copper citrate (see the Proceedings for 1910, pages 1007 to 1021, inclusive). This report was adopted, as was a recommendation by the committee that in future all papers competing for the prize be divided into four classes, according to the subjects treated, and that all the papers in each class submitted during four years be considered together, the prize, as heretofore, to be awarded each year, provided a worthy paper is offered for consideration.

Mr. Hynson, reporting for the section on education and legislation, told what that section's views were regarding commercial training in colleges of pharmacy, and the formation of a general permanent conference on national legislation. These matters were referred to the council, to provide ways and means of taking effective action concerning them.

L. F. Kebler, of Washington, gave an account of his reception by the National Wholesale Druggists' Association as a representative of the American Pharmaceutical Association.

Francis B. Hays, of New York, chairman of the committee on publicity, said that the net, tangible result of several years' of work on the part of the committee was a bill for postage and printing each year. There had been no organized campaign for publicity during the year just closed, and so he had no bill for expenses to present. However, some of the members of the committee had written letters to the press on subjects on which it was to the interest of the association that the public be enlightened.

As reporter to the public press Mr. Hays stated that he had called on the city editors of all or nearly all the Boston daily papers and had invited them to have represen-

tatives at the meeting. He had been well received, and took pleasure in saying that most of the papers had given good reports of the meeting; especially had the *Globe*, the *Herald* and the *Transcript* devoted a considerable amount of space to it. He recommended that the publicity work of the association be taken over by the secretary and editor, who would be well equipped to perform it.

The report was accepted and the recommendation adopted, and a motion that the daily press be requested to refrain from publishing the names of poisons used in cases of suicide, as such information suggested means for other suicides, prevailed.

On motion of Mr. Beal it was ordered that all recommendations from sections to the general session be approved, as in the confusion some of them might have been overlooked.

When the new officers had been installed Mr. Anderson moved that the thanks of the association be tendered to the local committee, to the press and to the retiring officers. He spoke in an especially feeling manner of the long and faithful service of the retiring secretary, Mr. Caspari. His motion prevailed.

Ex-President Eberle and ex-Secretary Caspari responded in a fitting manner, and at 1:50 o'clock the meeting adjourned.

ENTERTAINMENT.

Local committees, headed by C. H. Packard, for the men, and Mrs. John G. Godding, for the women, did everything that could be expected and much more than could have been asked, to make the stay of the visiting members and their friends pleasant and profitable. In addition to the set entertainment features, there were many little side trips on automobiles, and visits to the historic spots in and around Boston.

On Monday evening there was the usual president's reception and ball, preceded by a dinner to the visiting college graduates tendered by the Alumni Association of the Massachusetts College of Pharmacy.

On Tuesday forenoon the ladies were taken on a tour of Boston; in the afternoon they visited the Museum of Fine Arts and the Boston Public Library; and in the evening took in Norumbega Park and Zoological Gardens.



"My friend, this is a most excellent drink."

Tuesday evening the men were the guests of the local druggists at a smoker.

Wednesday morning the ladies took a ride to Lexington and Concord over the exact route made famous by Paul Revere, and after luncheon visited Cambridge, the Agassiz Museum, Washington Elm, and Longfellow's home. A card party at the Hotel Lenox was the feature of the evening.

On Wednesday evening there was a reunion and twenty-fifth anniversary dinner of the class of '86, Massachusetts College of Pharmacy.

Another automobile ride for the ladies was given Thursday forenoon. This led along the north shore road to Magnolia Beach and the summer home of President Taft. In the evening the Boston chapter of the Women's Organization of the National Association of Retail Druggists gave a musicale and reception at the Hotel Vendome, complimentary to the visiting women.

The grand outing feature of the meeting was an all-day sail to Plymouth and back, with luncheon on the boat, and a visit to the famous "Plymouth Rock" and other points of interest in the city which is one of the earliest American settlements.

Into all these entertainments the Boston contingent entered with a heartiness which at once made the visitors



E. O. ENGSTROM.

A prominent New Englander. The man who superintended who helped play the part of the arrangements for the meeting.



C. H. PACKARD.

feel at home, and even if the business session of the association and its sections and related bodies had not been successful, which they were, the social features of the occasion would have more than compensated all who came to the meeting for their trip.

SOME WHO WERE THERE.

According to the register, supplemented by data from other sources, the following members and guests were present at the meeting:

Alabama—Mrs. S. S. Hertz, of Montgomery; Mr. and Mrs. L. C. Lewis, of Tuskegee.

Arkansas—John B. Bond, Sr., and J. F. Dowdy, of Little Rock.

California—Mrs. Fletcher Howard, of Los Angeles.

Colorado—S. L. Bresler and C. M. Ford, of Denver.

Connecticut—C. A. Rapelye, of Hartford.

District of Columbia—Mrs. J. V. Calver, L. F. Kebler, and M. I. Wilbert, of Washington.

Florida—Mr. and Mrs. W. O. Rechtman, of Satsuma Heights; and Mr. and Mrs. E. Berger, of Tampa.

Georgia—Mr. and Mrs. George F. Payne, and Miss Gladys N. Payne, of Atlanta.

Idaho—C. O. Ballou, of Boise.

Illinois—C. H. Avery, A. H. Clark, Mr. and Mrs. W. B. Day, Frederick Fenger, W. A. Puckner, S. K. Sass, Mr. and Mrs. Clyde M. Snow, L. E. Warren, and Mr. and Mrs. Thomas V. Wooten, of Chicago; Mr. and Mrs. Gus Lindvall, Bessie Lindvall, Frederick Lindvall, and Mr. and Mrs. George W. Sohrbeck, of Moline; and E. W. Morse, of Mt. Vernon.

Indiana—Miss Gill, of Evansville; J. V. Barber, Jr., of Farmersburg; Mr. and Mrs. F. H. Carter, Mr. and Mrs. F. R. Eldred, Miss Laura C. Hartmann, and Charles C. Haskell, of Indianapolis; Mr. and Mrs. J. W. Sturmer, of Lafayette; and Miss Laura Eldred, of Ligon.

Iowa—J. W. Ballard, of Davenport; R. L. Parker, of Des Moines; W. J. Teeters, of Iowa City; Mr. and Mrs. G. Scherling, and Miss Gertrude Scherling, of Sioux City.

Kentucky—C. Lewis Diehl, of Louisville.

Louisiana—Philip Asher, and Mr. and Mrs. F. C. Bold, of New Orleans.

Maine—Frank R. Partridge, of Augusta; W. M. Close, and Charles H. Davis, of Bangor; M. L. Porter, of Danforth; Angus McLean, and W. E. Tibbitts, of Milltown Station; and Frank W. Buckman, of Skowhegan.

Maryland—Charles Caspari, Jr., Mr. and Mrs. A. R. L. Dohme, Mr. and Mrs. H. A. B. Dunning, Mr. and Mrs. P. J. Heusler, Mr. and Mrs. John F. Hancock, Miss Lillie Hancock, Henry P. Hynson, and Miss Natalie Hynson, of Baltimore; and Mr. and Mrs. M. C. Powell, and Miss Elizabeth Powell, of Snow Hill.

Massachusetts—Mr. and Mrs. L. W. Griffin, of Allston; Arthur O. Austin, of Auburndale; Mr. and Mrs. W. R. Acheson, Walter N. Baker, E. F. Bigelow, F. L. Brown, A. A. Burnham, Mr. and Mrs. F. L. Carter, F. L. Carter, Jr., Max Cramer, Mr. and Mrs. L. D. Drury, Mrs. J. R. Ellis, Cora E. Ellsworth, Frank F. Ernst, Mrs. G. K. Ernst, J. C. Hager, Mr. and Mrs. I. P. Gammon, J. A. Knudson, Mr. and Mrs. Robert C. McGowan, Mr. and Mrs. M. J. McIntyre, E. C. Marshall, Mr. and Mrs. W. F. Sawyer, Theodore H. Stachli, V. S. Taylor, Mrs. A. L. S. Thrasher, and Daniel O. Wolff, of Boston; Mr. and Mrs. John G. Godding, of Brighton; Mr. and Mrs. Harry W. Blake, of Brookline; M. E. Berkowitz, Mr. and Mrs. H. R. Copiltorn, Mr. and Mrs. F. J. Connolly, Mr. and Mrs. P. J. McCormick, Mr. and Mrs. E. H. La Pierre, Miss Sally La Pierre, and Mr. and Mrs. C. A. Stover, of Chelsea; Mr. and Mrs. Charles H. Davis, S. A. Oppe, and Mr. and Mrs. John E. Riley, of Dorchester; C. H. Packard, and Mrs. Zilla I. Staples, of East Boston; Mr. and Mrs. J. F. Fenneran, of Everett; John R. Sands, of Fort Banks; Harry L. Brues, of Groton; Mrs. E. A. Kempton, of Haverhill; Mr. and Mrs. L. G. Heinritz, of Holyoke; C. B. Wheeler, of Hudson; Mr. and Mrs. W. H. Glover, of Lawrence; C. F. Nixon, of Leominster; D. W. Foster, of Lynn; Miss Carolyn M. Perry, of Natick; Mr. and Mrs. Fred A. Hubbard, of Newton; Mr. and Mrs. J. T. Waterhouse, of Newton Highlands; Carrie L. Sears, of Newton Lower Falls; E. O. Engstrom, of Pittsfield; Mrs. J. W. Cooper, of Plymouth; Mr. and Mrs. G. H. Kelly, of Roxbury; Mr. and Mrs. J. A. Bean, and C. E. Brown, of Somerville; Mr. and Mrs. E. L. Patch, and Miss Esther M. Patch, of Stoneham; Claude C. Cannon, of Vineyard Haven; B. C. Burdette, of Waverley;

J. M. Good, Estelle Jenda, R. F. Jenda, and Mr. and Mrs. H. M. Whelpley, of St. Louis.

Nebraska—R. A. Lyman, of Lincoln.

New Jersey—Mr. and Mrs. G. M. Beringer, of Camden; Mr. and Mrs. Charles Holzhauer, of Newark; Mr. and Mrs. G. W. Parisen, of Perth Amboy; and B. L. Murray, of Rahway.

New York—H. L. Taylor, of Albany; Mr. and Mrs. W. C.



Now whatever can Prof. Remington and Dr. Kehler be talking about so earnestly and confidentially?

Anderson, E. H. Bartley, Mr. and Mrs. G. C. Diekman, Joseph Kahn, Otto Raubenheimer, and F. P. Tuttle, of Brooklyn; Mr. and Mrs. A. M. Roehrig, of Buffalo; W. L. DuBois and Miss Dubois, of Catskill; W. C. Alpers, Louis Berger, Emil Boehm, T. P. Cook, W. G. Cook, R. A. Hatcher, Francis B. Hays, E. J. Kennedy, Hugo Kantrowitz, J. L. Lascoff, Robert L. Lehman, Louise Lehman, Henry C. Lovis, Ewen McIntyre, Mrs. Henrietta Maibrun, Thomas F. Main, William Mansfield, C. A. Mayo, Mr. and Mrs. C. W. Parsons, Mr. and Mrs. Henry W. Schimpf, and Miss Seabury, of New York; and David Stolz, of Syracuse.

North Carolina—E. V. Howell, of Chapel Hill; Ira W. Rose, of Rocky Mount; and E. V. Zoeller, of Tarboro.

North Dakota—H. L. Haussamen, of Grafton.

Ohio—Mr. and Mrs. Frank H. Freerichs, and John Uri Lloyd, of Cincinnati; H. V. Arny, Mr. and Mrs. N. A. DuBois, Mr. and Mrs. Lewis C. Hopp, Miss Emma Hopp, and J. F. Woolsey, of Cleveland; G. B. Kauffman, of Columbus; Mr. and Mrs. C. S. Ashbrook, of Mansfield; Mrs. W. H. Whitcomb, of Oxford; and J. H. Beal, of Scio.

Oklahoma—H. D. Kniseley, of Checotah; and J. C. Burton, of Stroud.

Pennsylvania—Mr. and Mrs. George A. Gorcas, and Miss Katharine Gorcas, of Harrisburg; Mr. and Mrs. J. L. Lemberger, of Lebanon; Miss Helen R. Burns, of Lewistown; Mr. and Mrs. P. Henry Utech, of Meadville; Mr. and Mrs. John C. Wallace, of New Castle; Mr. and Mrs. F. M. Apple, E. Fullerton Cook, Mr. and Mrs. Joseph W. England, Quintus Hoch, Mr. and Mrs. C. H. LaWall, C. B. Lowe, G. H. Meeker, J. P. Remington, Dr. Solomon Cohen, I. V. S. Stanislaus, F. E. Stewart, F. P. Stroup, Maggie F. Wells, H. E. Wendel, Emma Wendel, Mary E. Wendel, and Mr. and Mrs. R. W. White, of Philadelphia; and Mr. and Mrs. Louis Emanuel, E. C. Emanuel, Ruth O. Emanuel, J. A. Koch, Mrs. C. M. McCandler, B. E. Pritchard, and Louis Saalbach, of Pittsburgh.

Rhode Island—James O'Hara, of Providence.

South Dakota—Stephen H. Scallin, of Mitchell.

Tennessee—Mr. and Mrs. J. O. Burge, Mrs. Eva D. Thackston, William R. White, and Mrs. Ida R. Williamson, of Nashville.

Texas—Mr. and Mrs. E. G. Eberle, of Dallas; R. H. Walker, and R. H. Walker, Jr., of Gonzales.

Virginia—Miss Anabel Hays, and Mr. and Mrs. T. F. Knock, of Petersburg.

Washington—C. W. Johnson, of Seattle.

Wisconsin—E. Kremers, of Madison; and G. V. Kradwell, of Racine.

Cuba—Jose P. Alacan, of Vedado.



There was a large crowd around Plymouth Rock, but somehow the camera pointed straight at Dr. and Mrs. Whelpley.

Jennie H. Summer, of West Roxbury; Mr. and Mrs. P. J. Kennier, and J. W. T. Knox, of Winthrop; and W. S. Flint, of Worcester.

Michigan—J. M. Francis, Mr. and Mrs. Harry B. Mason, Mr. and Mrs. W. L. Scoville, Miss Amy Scoville, Miss Ruth Scoville, and L. A. Seltzer, of Detroit; and Mr. and Mrs. E. J. Rodgers, of Port Huron.

Missouri—Mr. and Mrs. William Mittelbach, of Boonville; Mr. and Mrs. C. E. Zinn, of Kansas City; and L. G. Blakeslee, Mr. and Mrs. Solomon Boehm, J. A. Boehm, C. E. Caspari, Mr. and Mrs. Otto F. Clauss, Mr. and Mrs.

Conference of Pharmaceutical Faculties.

Owing to the absence on account of sickness of President J. O. Schlotterbeck, of Ann Arbor, his address to the twelfth annual meeting of the American Conference of Pharmaceutical Faculties was read by Secretary C. W. Johnson, of Seattle. The sessions were held at the Hotel Vendome, Boston, during the week of August 14th, in conjunction with the fifty-ninth annual meeting of the American Pharmaceutical Association. The address was full of recommendations of a constructive character, and the appreciation of the conference of the work of its president was shown by its re-election of him to the office in spite of his absence.

Secretary-Treasurer Johnson reported a balance in the treasury of \$576.

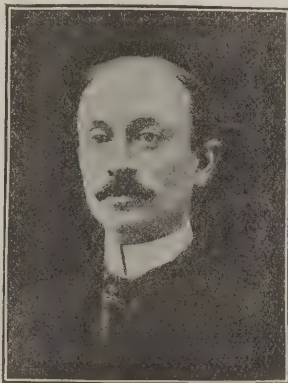
A paper on the teaching of pharmaceutical arithmetic was read by Prof. J. H. Beal, of Scio, Ohio, and discussed by Profs. A. B. Stevens, of Ann Arbor, and J. W. Sturmer, of Lafayette, Ind., all three of whom have published books on the subject.

Another paper, on pharmaceutical technic, was read by Prof. Edward Kremers, of Madison, Wis.

It was decided that the conference should apply for par-



J. O. SCHLOTTERBECK.
Re-elected President of the Conference.



JULIUS A. KOCH.
Chairman of the Executive Committee.

ticipation in the Carnegie foundation fund, provisionally; and it was also ordered that hereafter before a college faculty is admitted to membership in the conference, inspectors should visit the college and make a favorable report as to its status at the expense of the conference.

Prof. C. W. Johnson, of Seattle, was made a member of the national syllabus committee to succeed Prof. H. V. Arny, now of Cleveland, but soon to join the faculty of the College of Pharmacy of the City of New York, Columbia University.

The usual amount of routine work, accompanied by much discussion of a more or less technical character, was accomplished.

New officers, unanimously elected, are as follows: President, J. O. Schlotterbeck, of Ann Arbor; vice-president, A. H. Clark, of Chicago; secretary-treasurer, C. W. Johnson, of Seattle; executive committee, J. A. Koch, of Pittsburgh; W. J. Teeters, of Iowa City; E. G. Eberle, of Dallas; J. M. Good, of St. Louis; and E. H. La Pierre, of Boston.

National Association of Boards of Pharmacy.

During the week of the meeting of the American Pharmaceutical Association at Boston, August 14th to 19th, the National Association of Boards of Pharmacy held its eighth annual meeting with President E. O. Engstrom, of Pittsfield, Mass., in the chair.

The report of Secretary A. F. Sola, of Winchester, Ind., showed that thirty-three State boards held active membership in the association, and six, associate memberships.

R. H. Walker, of Gonzales, Texas, reported for the executive committee, and E. Berger, of Tampa, Fla., for the committee on new members. The latter report showed that two associate members had become active members during the year, and that five other State boards had become active members.

H. L. Haussamen, of Grafton, N. D., reported for the

committee on examinations, Chairman W. F. Root, of Brattleboro, Vt., being absent, and R. H. Walker performed a like service for the committee on publication, in the absence of its chairman, F. B. Lillie, of Guthrie, Okla.

The following officers were elected: President, R. H. Walker, of Gonzales, Texas; vice-presidents, C. H. Davis, of Bangor, Me.; H. L. Haussamen, of Grafton, N. D.; and L. C. Lewis, of Tuskegee, Ala.; secretary-treasurer, A. F. Sola, of Winchester, Ind.

John B. Bond, Sr., of Little Rock, Ark., was appointed to serve the unexpired term of R. H. Walker as a member



R. H. WALKER.
The New President of the Boards Association.



A. F. SOLA.
Re-elected Secretary-Treasurer.

of the executive committee; C. E. Zinn, of Kansas City, Mo., was elected a member of the executive committee for a full term of three years; and W. H. Rudder, of Salem, Ind., was made a member of the national syllabus committee in place of E. Berger, whose term had expired.

The Annual Joint Conference.

As usual, one session of the section on pharmaceutical education and legislation was held in conjunction with a session of the conference of faculties and a session of the association of boards. This joint meeting took place Thursday evening, and was devoted principally to a discussion of a model set of board questions which had been prepared by a committee composed of five members of the conference of faculties and a like number from the association of boards. No definite conclusion was reached.

Dr. Henry L. Taylor, of Albany, representing the department of education of the State of New York, spoke on the work of the syllabus committee, and a general discus-



Prof. Caspari, "Jr.," stands in the center, while next him is his son, Prof. Caspari, "Sr." The paradox—or pair o' docs—does—or do—not seem to bother Prof. Kremers in the least. These men are three of the pillars of the association; the other four pillars in the picture help to support Plymouth Hall.

sion followed. Those who had changes in the syllabus to suggest were requested to submit them in writing. The committee is open for criticism and suggestion at all times, and gets a good deal of both.

National Syllabus Committee.

The national syllabus committee is a body composed of twenty-one members, one-third of whom are appointed by the American Pharmaceutical Association, one-third by the American Conference of Pharmaceutical Faculties, and

one-third by the National Association of Boards of Pharmacy. Its duty is to prepare an outline of what should be taught at colleges of pharmacy, and how, and to designate the proportionate amount of time which should be devoted to each subject taught. It was formed last year (see the CIRCULAR for June, 1910, page 311), to take up and continue the work begun by a smaller committee working under the joint supervision of the New York Board of Pharmacy and the department of education of the State of New York.

The members of the committee are as set forth below:

A. Ph. A.	A. C. P. F.	N. A. B. P.
H. L. Taylor,	C. W. Johnson,	W. H. Rudder,
Albany, N. Y.	Seattle, Wash.	Salem, Ind.
W. G. Gregory	J. H. Beal,	E. O. Engstrom,
Buffalo, N. Y.	Pittsburgh, Pa.	Pittsfield, Mass.
W. B. Day,	H. H. Rusby,	S. L. Hilton,
Chicago, Ill.	New York, N. Y.	Washington, D. C.
G. M. Beringer,	J. O. Schlotterbeck,	Charles Gietner,
Camden, N. J.	Ann Arbor, Mich.	St. Louis, Mo.
H. B. Mason,	J. A. Koch,	W. E. Collins,
Detroit, Mich.	Pittsburg, Pa.	Owasso, Mich.
E. G. Eberle,	W. C. Anderson,	D. F. Jones,
Dallas, Tex.	Brooklyn, N. Y.	Watertown, S. D.
Charles Caspari, Jr.,	C. B. Lowe,	C. O. Bigelow,
Baltimore, Md.	Philadelphia, Pa.	New York, N. Y.

The terms of the three members whose names appear on the top line run for seven years from 1911, each of these members having been appointed this year for a full term. The remaining members are to serve for six, five, four, etc., years, respectively, as indicated by the relative positions of their names in the list.

Dr. A. R. L. Dohme, of Baltimore, accompanied by Mrs. Dohme and their two daughters, returned home recently from an extended automobile trip through the mountains of New York and New England.



Mrs. Godding resting on the porch of Plymouth Hall. She did not know what the camera man was doing until it was too late either to defend herself or run.

Prof. and Mrs. Anderson being from Brooklyn, look around to see what Plymouth has to offer in the way of choice building lots, but failed to find anything in the "only forty-five minutes to Broadway" zone.

The sometimes accurate *Hartford Times*, under "Science Notes," reports that a German professor has produced artificial rubber by boiling "isofrem" in acetic acid. He thus produces "a grayish composite having all the qualities of rubber." The trouble is to secure the first ingredient. "Isofrem" is a distillate of iceofrom, which is boiling water kept at 375° F. until it freezes solid. It is then cut into inch cubes, shellacked and exposed to the rays of the moon until they turn greenish-pink. It is then ready for use.—*India Rubber World*.

Adolph Pricken, who was charged with the theft of \$30,000 worth of perfumery from Park & Tilford, of this city, has been convicted and sentenced to serve four years and five months in Sing Sing prison.

Michigan has a new law which requires the use of a special characteristic stopper in all bottles containing poison. The measure becomes effective November 1st.

Physicians on the Scope of the Pharmacopœia.

Physicians are the proper ones to say what should go with the Pharmacopœia, so it is seemly that the chairman of the sub-committee on admissions and deletions



DR. SOLOMON SOLIS COHEN.

since, now being professor of the executive committee of the committee of revision of the United States Pharmacopœial Convention should be a physician. The man who fills this place is Dr. Solomon Solis Cohen, who for nearly thirty years has been teaching medicine in one or more of the many medical colleges of his native city, Philadelphia. Dr. Cohen was born September 1st, 1857, and after taking his A. B. and A. M., entered Jefferson Medical College in 1880, from which he emerged three years later with his M. D. He at once took up teaching in connection with his practice, and has been at it ever

since, now being professor of clinical medicine at his alma mater.

The Doctor is a prolific writer and a member of many societies, medical, social, poetical, literary and educational. In his writings and lectures he has always opposed therapeutic nihilism, and while he has avowed a "robust faith in the efficacy of the right drug given in the right dose at the right time," he has been a pioneer in the systemization of hygiene and non-drug treatments.

It has well been said of Dr. Cohen that he "is a man of philosophic mold, full of learning, ripe in knowledge, rich in experience, a profound thinker, an eloquent speaker, a scholarly and graceful writer, an entertaining lecturer, an admirable teacher, of sympathetic temperament, liberal in spirit and just in act."

The Davis Drug Company, Fort Smith, Ark., occupies a new modernly-equipped store, a prominent feature of which is its soda fountain—said to be one of the finest in that section of the country.



Prof. Clark scanning the scenery for a good picture for his camera. The cigar is for artistic inspiration.

Prof. LaWall and the Circular camerist, each try to "get the drop on" the other first, while Mrs. LaWall, as is usual with the innocent by-stander, is a victim.



Los Angeles County, Cal., has a new ordinance that requires druggists to report to the police officials any case of gunshot or knife wound coming to their attention, which was received otherwise than accidentally or in a surgical operation.

The New Dean at Cleveland.

To succeed Prof. H. V. Army, whose change from the deanship of the Cleveland School of Pharmacy to a professorship at the College of Pharmacy of the City of New York was reported in last month's CIRCULAR, page 439, the trustees of the Cleveland school have elected as dean Dr. Norman A. DuBois, formerly of the Case School of Applied Science.



N. A. DUBOIS, B. S., A. M., Ph. D.

The new dean of the Cleveland School of Pharmacy, Western Reserve University.

Prof. DuBois has acquired a valuable experience in the teaching of chemistry through his connection with the instructing staff of Brown University, Syracuse University, and New York University, before going to the Case school. His experience has covered all the various phases of chemical teaching including the instruction of advanced university students. This will doubtless stand him in good stead in carrying the burdens of the head of a school, and should influence the progress of his pupils.

In industrial and applied chemistry also, Dr. DuBois is said to have acquired an enviable reputation; and he is well known as a research chemist. All in all his deanship should prove an aid toward the prosperous future that the trustees considered assured to the school in its newly equipped building.

Prof. Goodman on Sick-Leave.

The trustees of the University of Illinois have granted Dean F. M. Goodman, of the Chicago College of Pharmacy (a department of the university), a year's leave of absence on half pay. Prof. Goodman has been in poor health for more than a year, having had to relinquish his duties in January, last.

Prof. W. B. Day has been appointed acting dean and will take the classes in botany and materia medica during Prof. Goodman's absence. Prof. C. M. Snow will have charge of the course in pharmacy and will have the assistance in the pharmaceutical laboratory of Henry W. Colson, Ph.C. The course in chemistry will be given by Prof. A. H. Clark. The rest of the teaching staff is the same as during the last term.

Chicago College Confers Ph. C. Degrees.

The course at the Chicago College of Pharmacy for the degree of pharmaceutical chemist was this year completed by the following:

S. C. Annenberg, of Aurora; H. W. Colson, of Chicago; C. LeR. Foote, of Elgin; R. H. Lower, of Cairo; and J. B. Carpenter, of Grand Junction, Col.

Picnics.

Two carloads of Grand Rapids (Mich.) druggists, their families and friends, were entertained by their Muskegon brethren August 3d. A number of athletic events were held, and there was also general entertainment.

Some 300 persons were present at the picnic of the Milwaukee Pharmaceutical Association, July 27th. All sorts of games were indulged in, with a base-ball game as the pièce de resistance.

'Twas a howling success, that picnic of the Chicago Social Drug Club at Cedar Lake August 17th, with a real base-ball game, a regular Olympic athletic meet, and dancing—to say nothing of the feasting.

A base-ball match was the big feature of the outing of the Ohio Valley Druggists' Association held July 27th. A fine time was the total result.

Dr. Oldberg Gets New Degree.

At the 1911 commencement exercises of Northwestern University, at Evanston, Ill., the honorary degree of doctor of laws was conferred upon Dr. Oscar Oldberg. The Doctor had but recently resigned as dean of the department of pharmacy because of ill health.

Obituaries.

The following are the recently reported deaths of persons in the drug world:

ERASTUS C. BILLINGS, at Syracuse, N. Y., July 24th, aged seventy-two years.

CHARLES H. CARLTON, of Wilmerding, Pa., August 18th, aged seventy-three years.

FREDERICK THOMAS COOK, of Waterbury, Conn., August 19th, aged forty-five years.

S. S. CRISSMAN, of Johnstown, Pa., August 12th, aged sixty-four years.

AMOS S. FISHER, of Bergen, N. Y., August 13th, aged eighty-two years.

Dr. HERMAN GLUCKMAN, of Brooklyn, N. Y., at White Lake, August 8th.

HENRY N. HUNTINGTON, of Washington, Pa., at Franklin, August 14th, aged forty-eight years.

ALFRED P. KNIGHT, of Chicago, Ill.

LUTHER MACINNIS, of New Castle, Pa., July 24th, aged eighty-two years.

DARWIN W. MEAD, at Oswego, N. Y., August 1st, aged fifty-five years.

JOSEPH B. OVER, of Memphis, Tenn., August 11th, aged thirty-seven years.

GEORGE L. PIERCE, of Jamaica Plain, Mass., at Lowell, August 16th, aged thirty-four years.

WILLIAM READING, of Norton, Pa., July 23d, aged fifty-five years.

ROY C. ROBERTSON, at Clayton, N. C., July 14th, aged twenty-five years.

OZEN SACKETT, of New Albany, Ind., July 31st, aged seventy years.

STEINER SCHLEY, of Frederick, Md., August 16th, aged sixty-two years.

LEROY SHACKEFORD, of Trenton, Tenn., July 22d.

JAMES THADDEUS SHUPTRINE, of Savannah, Ga., August 15th, aged sixty-one years.

JOHN STRUMPF, of Gretna, La., July 28th, aged fifty-four years.

FERDINAND THIEMAN, of Chicago, Ill., July 22d, aged fifty-two years.

JOHN L. THOMPSON, of Cambridge, Mass., July 24th, aged forty-one years.

GUNDER TUFT, of Minneapolis, Minn., July 25th, aged thirty-four years.

REUBEN WALTER, of Philadelphia, Pa., August 7th.

C. A. WATSON, at Homer, N. Y., July 20th, aged seventy years.

Dr. T. D. WILLIAMS, of Jersey City, N. J., August 4th, aged fifty-five years.

WILLIAM WILSON, of Amsterdam, N. Y., July 24th, aged sixty-seven years.

EDWARD C. ZAHRT, of La Porte, Ind., July 22d.

Characteristics of Some Drugs in New Hampshire.

From the July issue of the *Sanitary Bulletin* published by the New Hampshire Board of Health is compiled the following information relative to some drug products investigated by the board:

Calcium hypochlorite.—"Acme," A. Mendelson's Sons, of New York, N. Y., two samples: "100 per cent. and 81 per cent. of the required amount of available chlorine." "Black Diamond," Archibald & Lewis, of New York, N. Y., two samples: "71 per cent. and 22 per cent., respectively, of the required amount of available chlorine."

Camphor liniment.—M. J. Lowe, of Lancaster: "8.9 per cent. of camphor." W. O. Emerson & Co., of Groveton: "8.5 per cent. of camphor." Arthur Chemical Company, of New Haven, Conn.: "5.82 per cent. of camphor." Several samples contained petroleum oil.

Fluidextract of ginger.—None of three samples collected was of standard strength.

Spirit of anise.—Allen Drug Company, of Hanover: "46 per cent. of the required amount of oil."

Spirit of camphor.—D. J. Buckley, of Dover: "56 per cent. of the required amount of camphor."

Spirit of peppermint.—W. H. Brown, of Pittsfield: "76 per cent. of the required strength." G. H. Colbath, of Pittsfield: "54 per cent. of the required strength." W. J. Lowe, of Lancaster: "60 per cent. of the required strength." D. C. Woodman, of Whitefield: "48 per cent. of the required strength." Blue Seal Extract Company, of Littleton: "16 per cent. of the required strength." Griffin's (Merrimac Chemical Company, of Franklin Falls): "22 per cent. of the required strength."

Tincture of iodine.—G. H. Colbath, of Pittsfield: "81 per cent. of the amount of iodine required." W. H. Brown, of Pittsfield: "41 per cent. of the amount of iodine required." D. C. Woodman, of Whitefield: "82 per cent. of the amount of iodine required." D. J. Buckley, of Dover: "70 per cent. of the amount of iodine required."

Atwood's Vegetable Jaundice Bitters.—Manhattan Medicine Company, of New York, N. Y.: "Contains 14.40 per cent. alcohol and about 20 per cent. solids, the latter consisting of licorice and probably gentian, rhubarb, and other herb bitters. No quinine."

Chloräthyl and Antidolorin.—"Two specimens of ethyl chloride, as used in dental surgery, were forwarded from Nashua. One of these was an imported product, known as Chloräthyl, Dr. Speier, distributed by Maurice Rosenblum, Boston, Mass., the other being manufactured by the Franco-American Chemical Works, Woodridge, N. J., and sold under the names of 'Antidolorin' ('Ethyl chloride of guaranteed purity'). The analytical results follow:

	Chloräthyl	Antidolorin
Specific gravity at 8°C..	0.910	0.910
Boiling point.....	13-14°C	13-14°C.
Alcohol	none	none
Free chlorides (mineral)	none	none
Sulphur compounds.....	none	present
Other bodies.....	none found	none found

"The above indicates that both samples consist of unmixed ethyl chloride, but the antidolorin has not been sufficiently purified from sulphur compounds, the amount present being sufficient to render the administration of this preparation by inhalation objectionable. Notwithstanding this fact, the antidolorin was said to be 'much the more expensive of the two.'"

Hakka Cream.—Hakka Chemical Company, of Boston, Mass.: "Consists essentially of menthol and boric acid in a vehicle of petrolatum; no cocaine. Notwithstanding its relatively high cost, the preparation is a very poorly made one, an examination of two tubes representing different lots indicating that practically all of the boric acid lay at the cap in both cases. Boric acid is not soluble in petrolatum."

Dr. Miles' Restorative Nervine.—Dr. Miles' Medical Company, of Elkhart, Ind.: "No alcohol was found in this preparation. The solids amount to about 60 per cent., including the glycerin used as a solvent. Cane sugar is present to the extent of 33.65 per cent., together with a large amount of invert sugar, undetermined. The residue upon incineration amounts to 11.48 per cent., practically the whole of which consists of bromides, upon which the me-

dicinal action of the preparation is doubtless chiefly founded, as the organic constituents seem to consist mainly of sugar, glycerin and aromatics. No antipyrine, no alkaloids."

Orrine (cure for the liquor habit).—Orrine Company, Incorporated, of Washington, D. C.: "Price \$1 per box of twelve powders. The latter were found to be exceedingly irregular as to weight, varying from less than five grains to ten grains, indicating careless preparation. The analysis indicates about 16 per cent. of ammonium chloride and 0.54 per cent. of gold chloride, mixed in a vehicle consisting of milk sugar. As for the gold, which is present in less than the minimum dose (amounting in these powders to 1/40 to 1/20 grain) [U. S. P. average dose is 1/20 grain], the National Dispensary states: 'It is said to be a preparation used by quacks in the treatment of the alcohol habit, but it has no specific action upon this condition, and the tonics and stimulants given with it, combined with a good regimen, are probably of much more value.' The usual 'symptom blank' accompanies the package, and the literature has other 'ear marks' which serve for the proper classification of this nostrum. While the company guarantees to 'effect a cure or money refunded,' it appears that the terms of this guaranty are such that there is abundant likelihood that the average unfortunate would fail at some point to give the minute compliance required by the conditions imposed."

Sophistication in Massachusetts.

In the June number of the *Monthly Bulletin* of the Massachusetts Board of Health the board reported as follows concerning a number of samples of drugs which it had investigated during the month of June:

Camphor liniment.—A. W. Cunningham, of Springfield: "43.6 per cent. U. S. P. strength; low in camphor."

Extract of lemons.—Simpson Brothers Company, no address: "No lemon oil present."

Spirit of peppermint.—Charles Clarke & Son, of Lawrence: "61 per cent. U. S. P. strength; low in peppermint oil." Walter L. Conwell, of Boston: "29.5 per cent. U. S. P. strength; low in peppermint oil." Levasseur's Pharmacy, of Worcester: "78 per cent. U. S. P. strength; low in peppermint oil." Packard's Pharmacy of East Boston: "84.2 per cent. U. S. P. strength; low in peppermint oil." Ropes Drug Company, of Lynn: "84.2 per cent. U. S. P. strength; low in peppermint oil."

Tincture of iodine.—Bay State Drug Company, of Palm-er: "85 per cent. U. S. P. strength; low in iodine."

"Vino sangre, medicinal wine".—S. S. Pierce Company, of Boston: "Contained 19.28 per cent. alcohol by volume."

Laws Against Dope, Indecency and Other Things.

Progress is reported by the Thompson Drug Company, Spring Valley, Ill., in its efforts to secure copies of laws and ordinances against (1) the indiscriminate distribution of medicine samples, (2) the sale of morphine-laden soothing syrups, and (3) the advertising of remedies for diseases of women and venereal troubles. A request for data on these subjects from this company was printed in the CIRCULAR for July, page 371. Some were given therein, but the company wants more, and requests a druggist in each State and town in which there is such a law or ordinance to write it to that effect.

Now, druggists, here is an opportunity to manifest the fraternal spirit which you are known to possess. Get busy.

Himalya and McLean's Tar Wine Lung Balsam.

"Nature's great specific for the cure of asthma"—\$2 per bottle—otherwise known as himalaya, has been analyzed by the North Dakota authorities. In the "Special Bulletin, Food Department," for June, issued by Commissioner E. F. Ladd's department, Chemist Putt says:

This preparation appears to be a weak hydrochloric solution of potassium iodide flavored with peppermint and licorice, and colored with caramel. The label would indicate that the activity of the preparation is due, in part, to kola. Since caffeine was not detected in the course of the analysis and that drug is a constituent of true kola nuts, the logical conclusion is that little, if any, kola enters into the preparation.

Attention is called to the statement on the label that when the remedy is taken (already containing over 9 per cent. alcohol),

"it is better to use whisky as the alcohol aids in developing the action of the himalya." One might be curious to know just how much of this beneficial action is then due to the remedy and how much to the whiskey in which it is taken.

In the same bulletin Prof. Putt reports the result of his analysis of McLean's tar wine lung balsam, and adds this comment:

The analysis would indicate that this preparation is nothing but a weak syrup of tar containing about 15 per cent. by volume of ethyl alcohol.

The absence of tartrates, wine acids, and the presence of only a trace of phosphates clearly shows that the base of the preparation is not wine, as the label would lead one to believe.

Sugar and alcohol are present in about the same proportion as in an ordinary sweet wine, such as port.

In discussing the medicinal properties of tar, the United States Dispensatory (nineteenth edition), says: "Little benefit can be expected from it in genuine phthisis" [tuberculosis]. Thus the remedial agents contained in this preparation, which "will cure consumption," etc., are sugar and alcohol.

Both preparations were found not to be labeled in compliance with the laws of North Dakota.

Anti-Narcotic Doings.

According to a newspaper statement credited to Christopher Koch, of Philadelphia, vice-president of the Pennsylvania Board of Pharmacy, illicit trafficking in cocaine has been revived in the Quaker City to an alarming extent, since the cessation of the board's activity against dope-sellers. Supplies of the drug, Mr. Koch said, are sent in to agents, nominally wholesale druggists, by manufacturers in New York and Detroit. The drug is peddled on the street for the most part and supplied by a few druggists in the "tenderloin."

A conference of the local member of the board with the board's attorney has been held and prosecutions have been planned. The board is handicapped by a lack of funds, and practically prevented from killing the traffic by the lack of restrictions upon the interstate shipment of narcotics.

The Louisiana Board of Health has declared its intention of enforcing rigidly its ruling restricting the refilling of prescriptions for opiates and other narcotics.

R. P. Sims, of Spokane, Wash., recently plead guilty to a charge of refilling a prescription for cocaine contrary to the provisions of law. He was sentenced to pay a fine of \$25 and costs.

Ah Chew, of Portland, Ore., received the maximum penalty for illegally selling narcotics, in an action tried August 1st. He was sentenced to pay a fine of \$200 and to undergo an imprisonment of ninety days, at labor. Two other Chinese and two whites, one of the latter a druggist, are serving sentences for similar offences.

The California supreme court has declared the validity of the statute which makes it illegal for any person to have in his possession "any cocaine, opium, morphine, or any preparation thereof containing more than two grains to the fluid ounce, except upon the written order or prescription of a physician, dentist or veterinary surgeon licensed to practice in this State, or unless such possession is that of a jobber, wholesaler, manufacturer to pharmacies, retail pharmacy, physician, dentist or surgeon licensed to practice in the State."

Old Doc Wiley.*

By WALT MASON.

You can't speak too highly of good old Doc Wiley, the government chemist, our bulwark and hope, protecting our bellies from ketchups and jellies and all sorts of things which are loaded with dope. He's death to the faker; he chases the maker of fraudulent remedies, labeled with lies; he seizes the butter too rancid to utter, and puts the kibosh on the poisonous pies. Doc Wiley has throttled the sinners who bottled all sorts of cheap rubbish and labeled it jam; courageously, gaily, he's guarding us daily from dishonest sauerkraut and vitrified ham. It's true they are saying he's too fond of playing in front of the grand stand and beating the drum; but one who is doing the work he's pursuing would hurt and annoy us if he should be dumb. When news to us trickles that codfish or pickles were seized by Doc Wiley because they were punk, we list to his holler and bet half a dollar he'll clean up the fakers who dealt in such junk. So here's to Doc Wiley! They treated us vilely, by feeding us poison and gumbo and glue; they'd no ruth or pity till Doc, wise and gritty, jumped onto their persons and made them come through!

* Copyright, 1911, by George Matthew Adams.

Chemists Wanted in Federal Service.

An examination is announced for September 6th by the civil service commission, for the purpose of securing eligibles for the position of *assistant physical chemist* in the bureau of mines, at a salary of from \$1,500 to \$1,800 a year. Men only are eligible; and they must be between the ages of twenty and thirty-six years. The examination will embrace the subjects of general chemistry, physics, physical (metallurgical) chemistry, and translation from technical French, German or Spanish. Each candidate must submit a thesis on original investigation in physical chemistry. Applicants must have had an education and training equivalent to the degree of bachelor of science and four years' laboratory work.

September 16th, the commission will hold an examination for *assistant chemist* in sugar-planting investigations at a salary of from \$1,600 to \$1,800 a year. This examination will be open to men only, between the ages of twenty-five and forty years, who have an educational training equivalent to the degree of bachelor of science. The subjects in the examination will be general education and training, special education and training in analytical and organic chemistry, practical experience in laboratory work, mechanical knowledge, and training and experience in plant breeding. Each applicant must submit a thesis on original investigation in the utilization of chemistry of sugar plants.

An examination will be held September 20th to secure a *physical chemist* for the bureau of mines, at a salary of from \$2,400 to \$3,000 a year. This examination will be open to men only, between the ages of twenty-five and forty-one years, who have an education and training equivalent to the degree of bachelor of science, and five years' laboratory experience. It is desired to secure a man who is thoroughly trained in chemistry, physics, and metallurgy, and is able to read technical French, German or Spanish. Ratings will be made on education, training, experience, fitness, and contributions to the literature of the afore-mentioned subjects.

On the same date the commission will examine applicants for vacancies in the position of *junior laboratory helper* in the bureau of standards. The entrance salaries range from \$480 to \$540 a year, the position eventually paying \$900 a year. Able-bodied young men between the ages of sixteen and twenty-five years are eligible for these positions. They must pass an examination in spelling, arithmetic, letter-writing, copying, and penmanship.

Eligibles for a position as *metallurgical chemist* in the bureau of mines will be sought at an examination to be held September 23d. This position pays \$3,000 a year, and is open to men only between the ages of twenty-five and forty-six years, who are qualified in modern methods of sampling, analyzing, and assaying metalliferous ores and metallurgical products. Technical education equivalent to graduation by a school of mines is desired of the applicants; and they will be rated on education, training, experience, fitness, and contributions to the literature of metallurgical chemistry.

Full particulars of any examination may be obtained at the offices of the commission.

Price-Protection Upheld.

By a decision handed down recently by the supreme court of the State of Washington, at the petition of the Crescent Manufacturing Company, of Seattle, the Northwest Grocery Company, is restrained from "advertising or in any way whatsoever, offering for sale or otherwise disposing of any of the Crescent Manufacturing Company's trade-marked products from whatever source, now or hereafter, to be obtained for any price and terms other than or different than the contract, stipulated and advertised price thereof."

The order, which was dated May 24th, enumerated the set prices of the products involved and is a permanent restraint.

A special despatch to the New York *Sun* reports that a bill providing for the nationalizing of all drug stores in Russia will come before the дума in October. It is contended that the poor will be able thus to get better and cheaper drugs.

C. R. McCulloch, of Fremont, Ohio, retired August 8th, at the end of seventy years spent in the retail business in that city. Mr. McCulloch is eighty-six years old.

American Medical Association Meeting.

Many things of interest to pharmacists occurred in the course of this year's meeting of the American Medical Association which was held at Los Angeles, Cal., in June. One of these things was the adoption of a resolution in which the section on pharmacology and therapeutics called upon the house of delegates to instruct the council on health and public instruction to "draft amendments to the patent and trade-mark laws whereby no patents shall be granted on materia medica products, and the patents shall be limited to process and apparatus for manufacture, leaving the products themselves and the currently used names of the same free to science and commerce."

This same section, considering a communication from the American Pharmaceutical Association, approved, among others, the suggestions that the A. M. A. undertake an educational propaganda in behalf of official medicinal agents; and that a committee of the section study a plan of advanced education for pharmacists, it being the opinion that such education should embrace ethical instruction as well as professional. Relative to the sale of nostrums the section made the following utterance:

The section approves the efforts to eliminate the sale of nostrums by pharmacists and others. The amendment suggested in relation to the food and drugs act, making it a punishable crime to lie in advertising, would, if adopted, and put into operation, do much to control and limit the sale of this class of products.

Concerning substitution in one of its less obnoxious forms, the section expressed itself as follows:

The section does not approve of the substitution of one product for another, or one brand for another, without the knowledge and consent of the prescriber. Circumstances may sometimes arise when it is impossible to obtain consent beforehand. Under such circumstances the substitution of brands may be permissible but not the substitution of products. In such cases the prescriber should always be notified afterward and subsequent renewal of prescription be guided by the wishes of the prescriber.

One of the most momentous questions, from a pharmaceutical viewpoint, with which the section on pharmacology and therapeutics concerned itself was that of dispensing by physicians. There is much that is hopeful for pharmacists in the following utterance in which the section expressed its opinion on the subject:

The proper selection, preservation, preparation, compounding and dispensing of medicine requires proper education and training not included in the courses of instruction given in medical schools, but comprised in the courses furnished by schools of pharmacy. Physicians who have not duly qualified as pharmacists are not trained to undertake the work of the pharmacist. However, as stated in the recommendation of the delegation, there are conditions existing which require physicians to dispense their own medicine. The section, therefore, recommends that physicians shall, as far as possible, relegate to pharmacists the dispensing and limit themselves to the prescribing of medicines; also that pharmacists place themselves in position to act in co-operation with the medical profession by refraining from counter-prescribing, and recommending medicines for self-medication whether prepared by themselves or others.

The officers elected by the section on pharmacology and therapeutics are: Chairman, Torald Sollman, of Cleveland, Ohio; vice-chairman, R. L. Wilbur, of San Francisco; and secretary, M. I. Wilbert, of Washington, D. C.

The association elected the following general officers: President, Abraham Jacobi, of New York; vice-presidents, W. J. Barlow, of Los Angeles, Cal.; F. W. McRae, of Atlanta, Ga.; W. R. Tipton, of Las Vegas, N. M.; and A. L. Wright, of Carroll, Iowa; secretary, A. R. Craig, of Chicago; and treasurer, W. A. Pusey, of Chicago. Dr. G. H. Simmons, of Chicago, remains as editor and manager of the *Journal*.

Society of Chemical Industry.

At the thirtieth annual meeting of the Society of Chemical Industry, held at Sheffield, Eng., July 12th, the following officers were elected: President, Rudolph Messel, of London; vice-presidents, W. F. Reid, Henry Hemingway, and Sir William Crookes, all of England; and G. G. Henderson, of Scotland; honorable treasurer, Thomas Tyrer; and honorable foreign secretary, Dr. J. I. Lewkowitzsch.

An association has been formed by the manufacturers of store fixtures and furniture with the name, National Commercial Fixture Manufacturers' Association. About thirty firms are members. The association has an office at Grand Rapids, Mich.

British Pharmaceutical Conference.

Portsmouth, its officials and its pharmacists outdid themselves to play the host to the British Pharmaceutical Conference on the occasion of its forty-eighth annual meeting, held at that city July 25th to 27th. The meeting, as a result was socially a success; professionally and practically considered it was noteworthy. Twenty-seven organizations were represented by delegates.

President W. F. Wells in his annual address considered at length the legislative aspect of British pharmacy. His historical synopsis was very interesting. His conclusions were not very hopeful, although he disclaimed any pessimistic tendency. But he called upon each to do the little he could, courageously and hopefully to labor for better things.



W. F. WELLS.
The Retiring President.



SIR EDWARD EVANS.
The New President.

In the report of the executive committee there was embodied a series of recommendations formulated by a joint meeting of representatives of the conference and the British Medical Association. These had to do with a desire to retain the existence of pharmacy and to secure adequate recognition in the case of the enactment of the national insurance bill. The recommendations and particularly the matter which gave rise to them were discussed at some length, the conference finally concurring in the recommendations of the executive committee.

Treasurer J. C. Umney reported that the deficit in the finances of the conference had been reduced to £25.

Many important and interesting papers were presented; abstracts of some of them follow:

THE COMPOSITION OF DIABETIC FOODS.

Twelve different samples of gluten bread and flour, the product of seven manufacturers, were examined and reported upon by F. W. F. Armand, who concluded that the products of one manufacturer alone might be said to be satisfactory. A sample of an expensive diabetic food was found to consist of ordinary flour which had merely been heated. The author thought it expedient that some steps should be taken for the repression of the business carried on in the sale of ordinary bread and flour as especially recommended diabetic foodstuffs; otherwise the composition of these foodstuffs should be declared to the purchaser.

A SUGGESTED STANDARD FOR THYROIDEUM SICCCUM.

The agreement among the majority of pharmacologists that the activity of thyroid is directly proportional to and dependent upon the combined iodine present, said R. R. Bennett, appears to render it urgently desirable that an iodine standard should be fixed, especially in view of the wide variations in the iodine content of commercial samples of thyroideum sicccum. He had examined specimens of thyroideum sicccum from four of the leading manufacturers recently and he found the combined iodine present to vary in amount from 0.315 per cent. to 0.038 per cent. The author had also determined the percentage of iodine in dry thyroid prepared from sheep's thyroids obtained direct from the slaughter house, the glands having been treated in accordance with the directions of the British Pharmacopœia. The iodine present in the resulting powders varied from 0.21 per cent. to 0.096 per cent., the average value being 0.158 per cent. These and the figures of American investigators were taken to indicate that an

iodine standard of 0.15 per cent. might be adopted for *thyroideum siccum*.

EXTRACT OF INDIAN HEMP.

Harold Deane gave the results of the examination of a large number of samples of extract of indian hemp which showed that they varied to a remarkable extent. He suggested that the pharmacopœial process of manufacture should be altered and that some limit of the content of insoluble matter and water should be fixed officially. To produce a satisfactory extract, he suggested simply to wash the brown extractive with warm water, after the spirit has been distilled off, in the same way as resin of jalap and resin of scammony are prepared.

A FURTHER NOTE ON PODOPHYLLUM EMODI.

J. C. Umney stated that his investigations had convinced him that it is because of natural variations in the resin, probably at different seasons, that varying results have been obtained. He gave the results of an examination of podophyllum supplied to him from the Indian Museum by the indigenous drugs committee, and concluded that the rhizome collected after flowering is much richer in podophyllotoxin and of greater activity than that which he had previously examined, and is about twice as strong as the American variety.

THE SUPPOSED LOSS OF MORPHINE IN THE PREPARATION OF TINCTURE OF OPIUM.

The results of experiments reported by E. H. Farr and R. Wright went to prove that if the B. P. official methods are followed throughout there is always a slight loss of morphine. In seven samples of opium worked upon the loss varied between the limits of 0.8 per cent. and 9.0 per cent. of the whole, with an average for the series of 4.78 per cent. In the light of these results the authors believed that there is still room for a thorough and systematic review of the whole subject. If the principle of the process had been radically unsound the deficiency of morphine would logically have been more constant and regular than was the case. The loss appeared to the authors to be due more probably to occlusion of the alkaloid, rendering its complete extraction by water or alcohol a matter of practical impossibility, or to some other factor or factors which have hitherto escaped recognition.

AN EXPERIMENT IN PEPPERMINT CULTURE.

The idea of growing peppermint in the shade occurred to H. J. Henderson upon hearing that Mr. Burnett in 1816 first distilled peppermint oil in Wayne county from plants which he found and gathered on the banks of a little stream. The piece of ground which Mr. Henderson selected for his experiment was on the bank of a stream. The plants flourished but the lack of sunlight due to the shadow cast by trees on the opposite bank prevented the production of the hairs bearing the oil cells and reacted powerfully on the yield of oil, this being only 0.1 per cent. from the fresh herb, but the odor was very good. The yield of oil from the ordinary plants grown on the farm was 0.409 per cent. in the fresh herb, cut when in flower.

The other papers were: "Note on Spirit of Sal Volatile," by E. W. Pollard; "The Education of the Pharmacist from the Point of View of the Teacher," by F. Beddow; "Linimentum Ammoniae," by J. H. Alcock; "The Moisture and Ash Content of Medicinal Extracts," by K. C. Allen and Theodore Brewis; "Note on Arsenates of Strychnine," "Note on Strychnine Hypophosphite" and "Note on Spirit of Nitrous Ether," by D. B. Dott; "Note on Solution of Sodium Ethylate," by H. Finnmere; "Note on Bartsia Odontites," by H. Finnmere and G. E. Town; "Note on the Constitution of Commercial Bismuth Subchloride," by J. B. P. Harrison; and "White Precipitate and the Analysis of White Precipitate Ointment," by G. D. Elsdon.

SECRET AND PROPRIETARY MEDICINES.

The newly established practice session concerned itself for the most part with a discussion of ways of bringing about better conditions with regard to the sale and use of ready-made medicines. E. F. Harrison read an able paper stating that of the many suggestions for the legislative remedying of existing conditions the one which had found most favor with medical men and seemed likely to be put forward as representing their official demand, is that the law should make it compulsory for all medicines advertised or sold for the cure of disease, when not supplied on a medical prescription, to bear on the label a full statement of their exact composition; and that the label

should have the force of a warranty, with penalties for misstatements. Proprietary medicines would then be in the same position as other medicines and foods under the sale-of-food-and-drugs act, and the purchaser would be protected as he should be. Mr. Harrison was of the opinion that it would be sufficient to require the declaration on the label of the principal ingredients and those included in the poison schedule or having strong therapeutic action.

Such a requirement, he continued, would do much to put an end to the fraudulent nostrums, which owe their existence only to the fact that the public is kept ignorant of their real worthlessness. He offered a resolution favoring an investigation by a royal commission or similar body with a view to the correction of the nostrum evil by legislation. This resolution was passed.

Following an established custom the conference presented to the library of the local pharmacal organization a number of books, included in which were Remington's Pharmacy and the United States Dispensary.

The following are the officers elected for the ensuing year: President, Sir Edward Evans; vice-presidents, C. B. Allen, J. P. Gilmour, Sir William Baxter, H. G. Greenish, Edmund White, and J. L. Ewing; treasurer, J. C. Umney; general secretaries, E. S. Peck and H. Finnmere; local secretary, Thomas Stephenson; executive committee, F. W. Branson, E. F. Harrison, H. W. Gadd, D. L. Howard, F. W. Gamble, R. R. Bennett, C. A. Hill, Peter Boa, and J. R. Hill; auditors, I. Bourdas and R. A. Robinson.

The 1912 meeting will be held at Edinburgh, Scotland.

The Wiley-Wilson-Wickersham Muddle Investigated by Congress.

Transferred to the halls of congress as a special matter of business, the investigation of the affairs of the federal bureau of chemistry was continued at hearings before the house committee on expenditures in the department of agriculture until August 23d. Secretary Wilson, Chief Wiley, Solicitor McCabe, Dr. Rusby, Dr. Kehler, Dr. Dunlap and Dr. Bigelow were among those called upon to testify, and the revelations were, to say the least, astonishing.

Dr. Wiley's testimony was a recital of the hampering by red tape and by juggled reports of the work of the bureau in the enforcement of the food and drugs act. He declared that the board of food and drug inspection overrode the findings of the bureau and that the other two members often out-voted him in formulating rulings.

It transpired that the so-called "Rusby letter" upon which the action of the personnel board was nominally based was a draft of a letter never sent to Dr. Wiley and had been garbled in the report so as to point toward a disregard of the wishes of the secretary of agriculture.

Secretary Wilson was not a fruitful source of information to the committee. He said that much of the friction alleged to exist in the bureau of chemistry was unknown to him, and that, because Dr. Wiley was loath to consult with him in moot questions, the Doctor often believed he had been discriminated against when the department had made a ruling. The secretary characterized much of Dr. Wiley's complaint as due to an excessive sensitiveness.

Aside from the clash over the use of sodium benzoate, it came out that there were a number of cases in which there was a division in the board of inspection, chief among them being the question of calling glucose "corn syrup." In this case, Dr. Wiley testified, the recommendations of the chemical investigators was entirely disregarded in the promulgation of the ruling favoring the glucose makers.

The case is now up to President Tatt. What the disposition will be is entirely a matter of conjecture. At the most, it is not expected that the president will render any decision until late in the fall.

Chicago Association.

General discussions were the order at the quarterly meeting of the Chicago Retail Druggists' Association in July. The proposed anti-medicine-peddler ordinance was the subject of considerable comment. It was evident from the remarks of those present that the retailing of drugs by jobbers was practically a thing of the past.

New rules to apply in nomination were considered necessary and are being formulated.

The association decided to become affiliated with the Illinois Health, Sanitation and Improvement League.

News of the State Associations.

Massachusetts Association.

At the thirtieth annual meeting of the Massachusetts Pharmaceutical Association held at Hull, in June, the following officers were elected: President, W. S. Doane, of Worcester; vice-presidents, W. M. Curtis, of Roxbury; F. J. Campbell, of Lowell; and J. J. Harper, of Great Barrington; secretary, J. F. Guerin, of Worcester; and treasurer, T. P. Nichols, of Salem.

New Hampshire Association.

At the thirty-eighth annual meeting of the New Hampshire Pharmaceutical Association held June 27th and 28th, at The Weirs, the following officers were elected: President, C. G. Shedd, of Keene; secretary, E. M. Allen, of Canaan; and treasurer, S. H. Bell, of Derry.

North Dakota Association.

Enthusiastically endorsing many suggestions looking toward a better day in pharmacy, the North Dakota Pharmaceutical Association celebrated its silver jubilee at Grand Forks, August 1st to 3d.

In his annual address, President A. H. Bell, of Devil's Lake, urged the members not to be discouraged because the farmers had blocked the druggists' efforts to stop the sale of medicines by peddlers, but to strive harder until the opposition became enlightened in the evil of peddled medicine. The president called upon the members to take an interest in legislative matters and in the work of the medical societies. He also warned them against engaging in counter-prescribing; spoke against the proposed medicine stamp-tax; and called for a hard-working committee on membership.

In all these recommendations the convention concurred.

Secretary and Treasurer W. S. Parker, of Lisbon, reported that the association had 535 members, and that its financial condition was gratifying. Mr. Parker also made the report for the board of pharmacy of which he is secretary.

Considerable attention was bestowed upon the fact that there are in the State a number of illegal liquor-sellers who decorate their shops with a few dummy shelf-bottles and call themselves druggists. The convention asked the public press not to misrepresent the drug trade by calling these persons druggists in reporting instances of their apprehension by officers of the law.

Prof. E. F. Ladd, State food and dairy commissioner, was the speaker of the year. His address was well received and his sentiments quite generally endorsed. Prof. Ladd first told of the efforts to advance the educational standards of pharmacy in the State; and then he scored the quack nostrum traffic. Seventy-five per cent. of the nostrums, he said, could well be dispensed with. He pointed out the fact that erroneous statements as to curative properties were prohibited by the State food and drugs act; and he promised to keep up the work against the use of wood alcohol in medicinal preparations. The speaker also expressed a strong sentiment against misleading and untruthful advertising.

Walter Masters, of Willow City, was nominated to the governor for reappointment as his own successor on the board of pharmacy.

W. S. Parker, of Lisbon, was named as delegate to the Boston meeting of the American Pharmaceutical Association; and H. L. Haussamen, of Grafton, was selected to represent the association at the meeting of the National Association of Boards of Pharmacy.

The association elected the following officers: President, N. R. Strehlow, of Casselton; vice-presidents, A. C. Sigurdson, of Valley City; and Sidney Creaser, of Williston; secretary and treasurer, W. S. Parker, of Lisbon; executive committee, Harry Iverson, of Egeland; A. M. Reite, of Portal; and Lee Darling, of Ambrose.

The next meeting will be held at Fargo, August 7th to 9th.

Oregon Association.

The Breakers, in the State of Washington, was the scene of the very successful twenty-second annual meeting of the Oregon Pharmaceutical Association held July 12th to 14th. By the reports of officers and committees and by the interest displayed at the sittings the progressiveness of the organization was clearly indicated.

President Fabian Byerly, in addressing his fellow-members, advised them to take an interest in politics. He also recommended affiliation with the National Association of Retail Druggists, a protest against the stamp-taxing of medicines and the parcels post, and the commendation of manufacturers who endeavor to have the prices of their wares maintained. These recommendations were all concurred in with the exception of that relative to joining with the N. A. R. D.

Several representatives of co-operative inter-insurance concerns addressed the meeting. The convention requested liability insurance concerns to furnish it with understandable particulars of their plans.

A new constitution and by-laws were adopted.

Ten new members and thirteen life members were added to the rolls.

The following were nominated to the governor for his consideration in filling the next vacancy on the board of pharmacy: F. C. Pozzi (the member whose term expires), A. W. Allen, B. F. Jones, and Ralph Crysler, all of Portland; and D. O. Woodworth, of Albany.

Contributions amounting to \$12 were collected for the Hallberg memorial fund.

The following papers were presented: "The Ethical-Practical Druggist," by F. C. Pozzi (first prize); "Pharmacy: Its Failure, Its Misapplication, Its Chances," by Joseph Riden (second prize); "What Penalty Shall Be Meted Out for Selling Cocaine Illegally," by J. M. A. Laue (third prize); "Sunday Closing," by A. W. Allen; "Does Co-operation Pay the Retail Druggist?" by G. N. Cherrington; and "Olive Oil," by W. F. Woodward.

After considering the subject of illegal cocaine selling the convention endorsed the tenor of Mr. Laue's paper and advised that the paper be printed in newspapers; it further favored the revocation of the license of convicted cocaine sellers.

New officers were elected as follows: President, H. M. Horton, of Burns; vice-presidents, F. H. Caldwell, of Ontario; T. F. Laurin, of Astoria; and W. A. Gradon, of Portland; secretary, A. W. Allen, of Portland; and treasurer, B. F. Jones, of Portland.

Utah Association Incorporated.

The Utah Pharmaceutical Association has recently been incorporated "to unite reputable druggists of the State, to encourage scientific research, and to develop pharmaceutical talent." The incorporators are: President, John Cully, of Ogden; vice-presidents, R. H. McAllister, of Logan; and A. Headquist, of Provo; secretary, Charles Van Dyke, of Salt Lake; treasurer, H. M. Peterson, of Richfield; directors, J. L. Franken, W. L. Eddy, A. R. McIntyre, J. L. Boyden, L. M. Brown, and A. L. Sutton.

Washington Association.

Some stormy sittings marked the twenty-second annual meeting of the Washington Pharmaceutical Association which was held at Seattle, July 19th to 21st. The passages-at-arms were concerned chiefly with the affairs of the State board of pharmacy, the attack on that body being led by C. E. Osseward, of Seattle, a member of the board. The affray began with the reading of a paper by Mr. Osseward, on "What the State Board of Pharmacy Has Not Done," in which he charged the board with having failed to prosecute for violations of the law and with lowering the requirements for registration. Mr. Osseward was supported by the advocates of prerequisite graduation in pharmacy.

Twenty other papers were presented as follows: "First Aid to the Injured," by D. C. Hall, M. D.; "The Relation between the Pharmaceutical Manufacturer and the Retailer," by F. M. Harris; "Drugs of Animal Origin," by Mrs. Agnes Fay Morgan; "The Druggist; His Money; and Its Use," by W. F. Bente; "Salesmanship," by S. N. Swenson; "Tuberculosis," by John Weinzirl, Ph. D.; "The Relation between the Pharmacist and the Physician from the Physician's Standpoint," by M. G. Sturgis, M. D.; "The Enforcement of the National Food and Drugs Act," by H. M. Loomis; "Improved Pharmaceutical Processes," by E. P. Ferte; "Ice Cream as a Food," by J. C. Dunn; "Drug Assaying," by C. W. Johnson, Ph. D.; "Cut-Rate Drug Stores," by Barry Murphy; "Methods of Invoicing," by E. W. Hammond; "Volatile Oils," by R. E. Rose, Ph. D.; "The Pharmacist's Relation to His Societies and the State Board," by D. C. Bartley; "Counter Prescribing," by Mary

R. McGahn, M. D.; "Educational Prerequisites," by A. H. Dewey; "Higher Education in Pharmacy," by A. F. Maxwell; and "Mountain Scenery of Washington," by H. C. Engberg.

The following, all graduates in pharmacy, were nominated to the governor for his consideration in appointing a member of the board of pharmacy: H. C. Engberg, of Bellingham; A. F. Maxwell and E. W. Hammond, both of Spokane; D. B. Garrison, of Connell; and M. A. Weed, of Seattle.

Officers were elected as follows: President, C. E. Osseward, of Seattle; vice-presidents, C. W. Johnson, of Seattle; A. C. Dukelow, of Spokane; and A. E. Johnson, of Spokane; secretary, A. H. Dewey, of Seattle; and treasurer, D. C. Bartley, of Seattle.

West Virginia Association.

The fifth, the most successful, annual meeting of the West Virginia Pharmaceutical Association was held at Webster Springs, July 17th to 20th.

A number of able papers were read, including "Fire Insurance," by B. E. Downes, of Welch; and "The Advantages of a School of Pharmacy at the State University of West Virginia," by E. B. Dawson, of Shadyside, Ohio.

In the resolutions passed, the association pledged its efforts to eradicate the abuse of the privileges of a pharmacist and the illicit sale of narcotics; called upon the officials to enforce more rigidly the anti-narcotic laws; asked the legislature to enact a law prohibiting the itinerant vending of medicines; instructed the legislative committee to work for an amendment to the pharmacy law so as to free the appointment of members of the board of pharmacy from partisan influence, to limit membership on the board to two consecutive terms, and to have the secretary of the board selected from outside the members thereof; favored the election of druggists to the legislature; authorized the employment of counsel; reiterated its discouragement of counter-prescribing by druggists; reiterated its intention of abiding strictly by the excise laws and of striving to separate the sale of liquors from the drug business; extended good wishes to the associations of its sister States; and thanked the retiring officers and its entertainers.

Officers were elected as follows: President, G. O. Young, of Buckhannon; vice-president, S. M. Scott, of Terra Alta; secretary, Arch Krieg, of Charleston; treasurer, W. A. Ream, of Morgantown; and member of the council, W. E. Dittmeyer, of Harpers Ferry.

Next year's meeting will be held at White Sulphur Springs, June 19th to 23d. An invitation will be extended to the Virginia Pharmaceutical Association to meet jointly with the W. Va. Ph. A.

Prof. Beal Aids North Carolina Membership Committee.

We followed a newspaper report into an error in reporting the meeting of the North Carolina Pharmaceutical Association in last month's CIRCULAR, page 435. This was in stating that Prof. J. H. Beal, of Scio, O., was present at the meeting. Prof. Beal was prevented by force of circumstance from attending as he had planned.

Prof. Beal expressed regret for his unavoidable absence, in a letter, in which he also offered to place at the disposal of the association the sum of \$100 to be invested and the income of which to be used to pay each year the initiation fee to the association of the applicant for registration who during that year had the highest general average at the examination of the North Carolina Board of Pharmacy.

This offer was accepted by the association; and the donor was formally thanked.

According to the Chicago *Record-Herald* there were exported from this country during the year July 1st, 1910, to June 30th, 1911, nostrums and other proprietary medicinal preparations amounting in value to more than \$7,000,000.

The travelers' auxiliary of the Minnesota Pharmaceutical Association has on foot plans for the organization of a drug club in Minneapolis. It is purposed to have club quarters as soon as possible.

The Michigan Retail Druggists' Association will meet at Flint, October 3d.

German Society to Celebrate.

Preliminary to their grand annual reception and ball, the members of the New York German Apothecaries' Society will on the evening of September 28th indulge in a fest-kommers at Terrace Garden. This is to be a "stag" affair, at which refreshments will be served in German style. Original songs by members, composed for the occasion, will be supplemented by entertainment by "professionals." W. C. Alpers will preside.

On October 12th, at the same place, the society will celebrate the completion of sixty years of its existence. It claims to be the oldest pharmaceutical organization in the country, and probably is, the American Pharmaceutical Association not having been formally organized until 1852, one year later than the organization of the German society.

This birthday celebration will be on a large scale, many prominent pharmacists from a distance having been invited to attend. It will consist of a vocal and instrumental concert by professional talent, a banquet and a ball.

Secretary Otto P. Gilbert is chairman of the committee of arrangements, the other members of the committee, including most of the other officers of the society, as well as some of the hardest-working private.

It is expected that this anniversary celebration will be one of the most notable pharmaceutical functions in the annals of the country.

Philadelphia Association.

Offered by W. E. Lee, the following resolutions were unanimously passed by the Philadelphia Association of Retail Druggists at the meeting held August 3d:

Resolved, by the Philadelphia Association of Retail Druggists in regular meeting assembled, that we hereby give unanimous approval and expression of appreciation of the efficient manner in which the pure food and drugs act has been enforced under the direction of Dr. Harvey W. Wiley, and, be it further

Resolved, that it is the sense of this meeting that the removal of Dr. Wiley would be a calamity to the nation and a direct blow to the health of every citizen.

Much interest attended the consideration of the approaching meeting of the National Association of Retail Druggists, because the P. A. R. D. is again an affiliated member of the national organization and will send delegates to the convention. It was decided to pay the expenses of the N. A. R. D. delegates.

The delegates to the national convention were instructed to vote for the retention of H. W. Merritt, of Plains, Pa., in the official family of the N. A. R. D. Mr. Merritt is at the present time a member of the national executive committee and it was largely due to his efforts that the P. A. R. D. returned.

Christopher Koch announced that the Pennsylvania Board of Pharmacy was about to take steps to break up the renewed traffic in narcotic and habit-forming drugs in the city. The traffic was, he said, largely in the hands of street agents. Some further mention of the board's campaign is made on page 529 of this issue.

East New York Association.

To the large number of pharmacal organizations existing in Greater New York there was added recently the East New York Pharmaceutical Association, representing the druggists of the East New York section of Kings county. The stated purposes of the new organization are social and uplifting.

The following officers were elected August 18th: President, L. Smith; vice-president, M. A. Lipkind; recording secretary, L. Berliner; financial secretary, M. Gussman; and sergeant-at-arms, M. Hessel.

At this year's meeting of the Alumni Association of the Philadelphia College of Pharmacy, the following officers were elected: President, J. W. Frey, '83; vice-presidents, R. H. Lackey, '87; and W. E. Lee, '72; recording secretary, J. W. England, '83; corresponding secretary, Alfred Heineberg, '90; and treasurer, C. C. Meyer, '73.

At the recent quarterly meeting of the Montgomery County (Pa.) Retail Druggists' Association, held at Hatboro, resolutions were passed endorsing the work of Dr. H. W. Wiley, and deploring the attempt being made to oust him from the federal service.

News of the Pharmacy Boards.

List of Board Secretaries.

In the following list are to be found the names and addresses of the secretaries of the various boards of pharmacy of the country. When the date and place of the next meeting of a board are known they are given also.

Secretaries are requested to keep us informed as to dates and places.

- ALABAMA—October 10th, at Montgomery. E. P. Galt, Selma.
- ARIZONA—November 8th, at Phoenix. A. G. Hulett, Phoenix.
- ARKANSAS—J. F. Dowdy, Little Rock.
- CALIFORNIA—October 9th, at Los Angeles; October 16th, at San Francisco. Louis Zeh, San Francisco.
- CONNECTICUT—September 5th, at Hartford. J. A. Levery, Bridgeport.
- COLORADO—S. L. Bresler, Denver.
- DELAWARE—N. C. Downs, Wilmington.
- DISTRICT OF COLUMBIA—October 12th and 13th, at Washington. S. L. Hilton, Washington.
- FLORIDA—January 16th and 17th, at Jacksonville. D. M. Ramsaur, Palatka.
- GEORGIA—C. D. Jordan, Monticello.
- IDAHO—J. M. Starrh, Shoshone.
- ILLINOIS—F. C. Dodds, Springfield.
- INDIANA—October 11th and 12th, at Indianapolis. W. H. Fogas, Mt. Vernon.
- IOWA—October 3d, at Des Moines. E. J. Moore, Des Moines.
- KANSAS—W. E. Sherriff, Ellsworth.
- KENTUCKY—October 10th and 11th, at Mt. Sterling. J. W. Gayle, Frankfort.
- LOUISIANA—F. A. Earhart, New Orleans.
- MAINE—October 11th and 12th, at Augusta. F. W. Bucknam, Skowhegan.
- MARYLAND—Ephraim Bacon, Roland Park.
- MASSACHUSETTS—Every Tuesday between September 1st and July 1st, at Boston. P. J. McCormick, Boston.
- MICHIGAN—J. J. Campbell, Pigeon.
- MINNESOTA—October 16th, at Minneapolis. C. T. Heller, St. Paul.
- MISSISSIPPI—October 3d, at Jackson. L. H. Wilkinson, Greenwood.
- MISSOURI—October 9th, at St. Louis. C. E. Zinn, Kansas City.
- MONTANA—October 11th, at Great Falls. S. J. Coffee, Missoula.
- NEBRASKA—A. V. Pease, Fairbury.
- NEVADA—November 1st, at Reno. R. L. Prouty, Tonopah.
- NEW HAMPSHIRE—F. H. Wingate, Nashua.
- NEW JERSEY—October 19th and 20th, at Trenton. H. A. Jorden, Bridgeton.
- NEW MEXICO—A. J. Fisher, Santa Fe.
- NEW YORK—September 27th and 28th, at New York, Albany and Buffalo. W. L. Bradt, Albany.
- NORTH CAROLINA—December 5th, at Raleigh. F. W. Hancock, Oxford.
- NORTH DAKOTA—October 16th, at Fargo. W. S. Parker, Lisbon.
- OHIO—F. H. Frost, Columbus.
- OKLAHOMA—October 2d and 3d, at Oklahoma City. J. C. Burton, Stroud.
- OREGON—September 11th and 12th, at Portland. F. C. Pozzi, Portland.
- PENNSYLVANIA—L. L. Walton, Williamsport.
- RHODE ISLAND—October 3d, at Providence. J. E. Brennan, Pawtucket.
- SOUTH CAROLINA—November 15th, at Abbeville. F. M. Smith, Charleston.
- SOUTH DAKOTA—E. C. Bent, Dell Rapids.
- TENNESSEE—I. B. Clark, Nashville.
- TEXAS—September 19th, at Houston. R. H. Walker, Gonzales.
- UTAH—October 17th and 18th, at Salt Lake. W. H. Dayton, Salt Lake.
- VERMONT—D. F. Davis, Barre.
- VIRGINIA—October 24th, at Richmond. T. A. Miller, Richmond.
- WASHINGTON—P. Jensen, Tacoma.
- WEST VIRGINIA—A. Walker, Sutton.
- WISCONSIN—October 3d to 6th, at Madison. Edward Williams, Madison.
- WYOMING—C. B. Gunnell, Evanston.

California Board.

At the summer meeting of the California Board of Pharmacy the following passed the examinations for registration:

As pharmacists—R. J. Boehmer, S. M. Brown, F. V. Butler, L. S. Chambers, W. A. Davis, B. H. Dill, E. C. Groves, H. L. Hallett, A. F. Howard, Frederick Knaus, L. E. Knott, F. S. Lawhead, R. G. Lawson, William Middaugh, J. F. Oldham, Albert Osler, L. T. Reagan, L. P. Roy, L. T. O. Rule, W. P. Ryken, I. H. Schwartz, H. V. Tischhauser, and C. A. Woodson.

As assistants—H. E. Allen, A. A. Beard, Eugene Benthall, L. A. Barget, C. E. Bunnell, J. A. Davison, Ernest Debus, W. G. Downing, Joseph Feigen, Adah Galsin, C. M. Garrett, R. C. Gilliland, H. M. Hubbell, W. H. Johnson, D. S. Katz, G. A. Kirk, C. J. Langer, W. D. W. McCarroll, G. F. Meiser, F. C. Mitchell, V. P. Mulligan, Pauline J. Nast, G. H. Nelson, A. B. Otto, C. W. Parsons, G. C. Pedley, P. L. Pierce, B. C. Pilcher, T. J. Pilcher, E. A. Robinson, E. H. Seeliger, W. A. Straub, A. M. Thompson, H. N. Thompson, J. M. Thompson, C. L. Weaver, O. H. Whiteman, E. C. Wilhite, and D. H. Williams.

Registration as pharmacists was given to the following, without examination, under the provision of the law which extends licensure to persons having a given number of years' experience.

Eugene Babo, Albert Christensen, J. A. DeGaugh, W. H. Hambley, W. S. Houghton, Ernest Laudwehrkamp, E. S. Lieberg, S. E. Parkhill, and W. I. Strain.

The board elected officers as follows: President, J. O. McKown, of Livermore; treasurer, E. J. Moloney, of San Francisco; and secretary, Louis Zeh, of San Francisco.

The board will hold its next meeting October 9th to 20th, examining at Los Angeles, October 11th and 12th, and at San Francisco on the 18th and 19th.

Indiana Board.

At the July meeting of the Indiana Board of Pharmacy, the following applicants for registration were successful:

As pharmacists—R. H. Alexander, of Indianapolis; G. E. Blaney, of Paw Paw, Mich.; S. B. Burg, of Chicago, Ill.; C. H. Drybread, of Franklin; Harry Ewing, of Hope; H. W. Fleming, of Shelbyville; F. J. Freshley, of Plainville; O. G. Gaskill, of Markle; McGrayel Genolin, of Indianapolis; K. H. Gohman, of New Albany; W. F. Graubman, of Chesterton; F. E. Hammond, of Frankfort; G. G. Johnson, of Canadian, Tex.; A. M. Krutzen, of Chicago, Ill.; E. C. Martin, of Goodland; H. B. Miller, of Indianapolis; E. E. Montgomery, of Poseyville; C. E. McKenzie, of Indianapolis; C. N. Reed, and C. C. Ridlen, both of Indianapolis; G. W. Ripley, of Brookston; J. A. Robertson, of Salem; W. F. Robinson, of Denver; H. K. Schwarz, of South Bend; C. B. Stoltz, of Casey, Ill.; M. L. Stutzman, of Goshen; R. McC. Summers, of Indiana Harbor; A. H. Thomas, of Fortville; E. H. Vellinger, of Lafayette; J. W. Wade, of Fairbury, Ill.; and Harrison Williams, of Maunie, Ill.

As assistants—C. W. Bader, of New Albany; O. G. Burns, of Russiaville; Edward Carr, of Mitchell; L. H. Clevenger, of Parker; H. R. Cross, of Indianapolis; S. M. Denton, of Westport; C. M. Echols, of Indianapolis; E. F. Guthrie, of Logansport; M. S. Jack, of Terre Haute; A. J. Julien, of Elkhart; G. W. Kimball, of Ft. Wayne; W. E. Miller, of Shirley; W. S. Miller, of Lafayette; R. E. Morris and C. B. Neidhamer, both of Indianapolis; D. C. Paxton, of Van Buren; C. J. Pollom, and J. E. Ross, both of Terre Haute; Frank Sanders, of Kokomo; G. M. Smart, of Indianapolis; W. E. Steckelman, of Columbus; G. R. Syphers, of Portland; J. LaR. Taylor, and T. H. Winters, both of Shelbyville; W. A. Withers, of Bedford; Lee Wixsom, of Marion; and J. H. Zimmerman, of Ray.

The next meeting of the board will be held at Indianapolis, October 9th to 13th.

A number of prosecutions have recently been made by the board in instances of alleged failure to have a registered man in charge of the store. The convictions have not been many. The board has revoked the registration of several pharmacists who had been convicted of illegal liquor-selling. The cases have been appealed, the authority of the board being questioned.

Iowa Board.

Of the fifty-seven applicants for registration examined by the Iowa Board of Pharmacy at its June meeting, fifteen were successful.

The board has roused quite a furore in nostrum- and de-

partment-store circles by stating its intention to enforce a dead-letter section of the pharmacy law which limits to registered pharmacists the right to sell medicinal preparations containing opiates or alcohol. The board is also after the sellers of poison fly eradicators which are not properly labeled.

Kentucky Board.

The Kentucky Board of Pharmacy met at Paducah, July 11th and 12th, examining nineteen applicants for registration. The nine of these who were successful are:

As pharmacists—H. E. Katterjohn, of Paducah; L. B. Sisk, of Dalton, and T. P. Taylor, Jr., of Louisville.

As assistants—L. E. Coogle, of Louisville; W. H. Giliam and G. P. Holliday, both of Paducah; Clifton Hollowell, of Princeton; G. W. Milliken, of Paducah; and N. E. Thomas, of Wingo.

The next meeting of the board will be held October 10th and 11th, at Mt. Sterling.

Louisiana Board.

Thirty-three candidates for licensure were examined at the meeting of the Louisiana Board of Pharmacy held August 4th and 5th, at New Orleans. The following fourteen were successful:

As pharmacists—T. A. Chisholm, of Woodville, Miss.; A. T. Gonzales, of Gonzales; W. E. Griffen, of New Orleans; J. E. Guess, of Kentwood; A. J. Johnson, A. C. Lopez, J. C. Lynch, and L. J. Pujol, all of New Orleans; C. J. St. Martin, of Laplace; R. J. Sanchas, of Baton Rouge; Virginia Speight, of New Orleans; and R. Williams, of Minden.

As assistants—J. O. Gianelloni, of New Orleans; and E. B. Holbrook, of Kentwood.

The next meeting of the board will be held at New Orleans, November 3d and 4th.

Maryland Board.

Several more convictions have been secured by the Maryland Board of Pharmacy in its prosecution of unlicensed operators of drug stores. An assistant pharmacist attempting to run a store at Baltimore was fined \$15.

Minnesota Board.

Only nine passed of the fifty-four applicants for registration examined by the Minnesota Board of Pharmacy at its July meeting. The nine are the following:

As pharmacists—Alberta J. Austin, of Aberdeen, S. D.; M. J. Gans, of Perham; and H. F. Goodrich, of Anoka.

As assistants—R. J. Boordman, of Rochester; M. H. Haynes and E. O. Holmes, both of Minneapolis; W. R. Laliberte, of St. Paul; N. T. Magnussen, of Minneapolis; and E. J. H. Yaeger, of Sanborn.

The next meeting of the board will be held at Minneapolis, beginning October 16th.

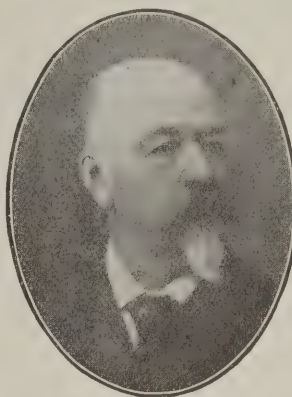
New Jersey Board.

At a result of the July examination held by the New Jersey Board of Pharmacy the following have been licensed to practice in that State:

As pharmacists—Abraham Abelsky, of Jersey City; Osher Briskin, of Perth Amboy; Mary J. Brown, of Trenton; F. C. Brush, of Philadelphia, Pa.; A. H. Carrington, of Merchantville; N. A. Cozens, of Philadelphia, Pa.; H. M. Dichter, of New York, N. Y.; John Drechsler and A. W. Farley, both of Trenton; Jacob Friedland and Abraham Friedman, both of New York, N. Y.; C. E. Gault, of Spring Lake; M. I. Ginsburg, of New York; S. B. Greenwood and W. M. Hahn, both of Newark; Morris Haimowitz, Philadelphia, Pa.; O. C. Hayes, of Manasquan; C. E. Heacock, of Williamsport, Pa.; D. R. Iusi, Morris Kantor and Isidor Kipnis, all of New York, N. Y.; R. H. Knowles, of Millville; H. Lenne, of Ocean City; A. W. Moore, of Trenton; E. J. Novotny, of Jersey City; J. M. O'Donnell, of Philadelphia, Pa.; Antonio Orefice, of New York, N. Y.; Albert Ostroff, of Brooklyn, N. Y.; E. G. Parentini, of West Hoboken; Samuel Rabinowitz, of New York, N. Y.; Joseph Roth, of Passaic; W. L. Rosenkranz, of Hoboken; W. E. Ruch, of Camden; William Sauer, of Jersey City; F. W. Schell, of Harrisburg, Pa.; Herman Strauss, of Bayonne; W. H. Udell, of Philadelphia, Pa.; A. V. Utzinger, of Plainfield; Frank Walkenberg, of Newark; Joel Weiner, of Malden, Mass.; and L. M. Wolchek, of Philadelphia, Pa.

As assistants—A. F. Calvin, of West New York; Vincent

Chaine, of New York, N. Y.; R. P. Fischelis, of Philadelphia, Pa.; Oscar Fraller, of Newark; C. D. Hakes, of Orange; H. F. Hein, of Manasquan; Nathaniel Kessler, of Newark; E. H. Kuhn, of Paterson; S. G. Levin and Alfred Maier, both of Newark; E. E. Sandbach, of Jersey City; and August Weisbrod, of Newark.



HENRY A. JORDEN.

Governor Woodrow Wilson has reappointed as a member of the board to succeed himself, Henry A. Jorden, of Bridgeton, who was first appointed to the board by Governor Griggs in 1896. Mr. Jorden has been the secretary and executive officer of the board from the time he first became a member. Doubtless he served well, for he differs in political views from the State executive who has retained him in the service of the commonwealth. He is a man who is "always on the job" when there is a pharmaceutical simmering in the legislative halls at Trenton.

The next meeting of the board will be held at Trenton October 19th and 20th.

North Carolina Board.

At the meeting of the North Carolina Pharmaceutical Association held July 7th, at Morehead City, sixty-two persons were examined as to their fitness to practice pharmacy. Thirty-two of these were successful, being the following:

J. M. Anderson, of Greenville; E. J. Barker, of Rowland; E. W. Barnes, of Kings Mountain; H. R. Browning, of Litleton; James Callahan, of Red Springs; B. J. Cottle, of Wilmington; G. M. Cox, of Lowell; E. P. Cranford, of High Point; F. D. Culpepper, of Spring Hope; Lee Davenport, of Pictolus; J. S. East, of Asheboro; S. G. Etheridge, of Elizabeth City; J. F. Frederick and C. B. Gallant, both of Charlotte; P. V. Godfrey, of Elizabeth City; J. W. Hairston, of Martinsville, W. Va.; J. C. Hood, of Smithfield; W. E. Horton, of Durham; Alpheus Jones, of Warrenton; W. C. Lane, of Goldsboro; M. T. Y. McManus, of Wake Forest; J. P. Moore, of Cary; J. C. Murphy, of Hickory; L. A. Reeves, of Chapel Hill; Cader Rhodes, of Jacksonville; J. C. Shelton, of High Point; Casper Smith, of Lumberton; E. W. Smith, of Pilot Mountain; J. E. Spencer, of Durham; E. S. Swindell, of Swan Quarter; W. G. Thomas, Jr., of Raleigh; and B. C. Toms, of Rutherfordton.

The next meeting of the board will be held at Raleigh, December 5th.

Oklahoma Board.

There were forty-nine applicants for registration at the meeting of the Oklahoma Board of Pharmacy held July 11th and 12th, at Oklahoma City. The following eighteen were successful in the examination:

O. J. Bellwood, of Turon, Kan.; E. H. Brune, of St. Louis, Mo.; L. W. M. Burton, of Sapulpa; F. S. Clancy, of Tulsa; Dr. L. D. Conn, of McCurtain; Mrs. Minnie I. Downes, of Luther; Manuel Gonzales, of Wichita, Kan.; W. A. Hatchett, of Weatherford; C. R. Healey, of Altus; W. E. Keller, of Muskogee; W. J. Kuntz, of Kansas City, Mo.; R. D. Ludden, of Mooreland; R. E. Mitchell, of Caneley, Kan.; Finis Sharp, of Wetumka; S. A. Strader, of Carney; G. B. Thomas, of Guthrie; C. R. Thornton, of Cordell; and F. M. Walker, of Oklahoma City.

The following graduates in pharmacy were licensed to practice, without examination:

D. M. Garland, of Fort Gibson; M. S. Kirkendall, of Tuttle; J. G. Luse and O. P. Luse, both of Muskogee; Ella D. McCance, of Mutual; O. J. Machenheimer, of Shawnee; V. M. Mulkey, of Pond Creek; F. E. Robinson, of Kingman, Kan.; Josephine Stanber, of Oklahoma City; and W. R. Wheeler, of Buffalo, N. Y.

The following licensees of boards of other States with whom the Oklahoma board has reciprocal relations were licensed without examination:

I. N. Bowdle, of Cordell; O. J. Bressie, of Ponca City;

C. E. Lee, of Nowata; J. L. McColm, of Bartlesville; and H. D. Thornton, of Murray, Ky.

The next meeting of the board will be held October 2d and 3d, at Oklahoma City.

Oregon Board.

Several drug-store proprietors have been apprehended by the Oregon Board of Pharmacy on a charge of leaving their places of business in charge of unregistered clerks. One Chinese store at Salem was among the offenders.

Leon B. Haskins, of Medford, has been appointed a member of the board, succeeding Clyde G. Huntley, of Oregon City, whose term expired this year.

Pennsylvania Board.

Some seventy-odd warrants have been prepared at the instance of the Pennsylvania Board of Pharmacy for dealers in paints and photographic supplies alleged to have sold potassium cyanide, mercury bichloride, phenol, oxalic acid, and other poisons without complying with the labeling and registering provisions of the State law. About thirty arrests were made August 17th and 18th.

The board has also under way another campaign against dope-sellers.

South Carolina Board.

Of thirty persons making application for registration but twelve passed the examination of the South Carolina Board of Pharmacy at its summer meeting. The successful ones are:

J. T. Crawford, of Union; A. M. Criminger, of Lancaster; E. O. Frierson, of Anderson, J. J. Graham and A. M. Hill, both of Greenville; H. H. Huggins, of Manning; R. F. Kee, of Chester; D. G. Mahon, of Abbeville; G. W. Mouzon, of Greenville; C. E. Powe, of Hartsville; G. T. Riley, of Spartanburg; and V. T. Wilson, of Anderson.

The next meeting of the board will be held November 15th, at Abbeville.

Texas Board.

At a called meeting of the Texas Board of Pharmacy held at Dallas, in June, sixty-seven applicants for registration were examined. Nineteen of these were successful, as follows:

As pharmacists—E. W. Bass, of Galveston; J. W. Cooper, of Hillsboro; V. C. Cupp, of Lufkin; C. M. Frazier, of Dallas; C. E. Hill, of Austin; L. F. Hooten, of Cooper; Mrs. Elma Kavanaugh, of Fairy; R. G. Lewin, of Beaumont; Jonathan McClain, of Marshall; T. C. McCormick, of Rouse City; A. T. Mast, of Nacogdoches; L. M. Rogers, of Marshall; W. J. Roland, of Anson; Isadore Schaffer, of Houston; J. F. Seymour, of Beeville; G. W. Shaw, of Wichita Falls; Bertha Urdong, of Center; and F. A. Walter, of San Antonio.

As an assistant—Beth A. Michel, of Marble Falls.

The next meeting of the board will be held September 19th, at Houston.

Utah Board.

At the meeting of the Utah Board of Pharmacy held July 18th and 19th, at Salt Lake City, two applicants for registration passed, out of seven examined. The successful ones are:

W. S. Musser, of Salt Lake City; and Walter Rampton, of Farmington.

F. F. Ziddell was registered without examination, the first person to be licensed under the reciprocal provisions of the law.

The next meeting of the board will be held October 17th and 18th, at Salt Lake City.

Virginia Board.

At the meeting of the Virginia Board of Pharmacy held July 18th, at Richmond, there were examined twenty-seven applicants for registration as pharmacists, and twenty-two as assistants. The successful ones numbered fifteen and twenty in the respective grades. Those who passed are:

As pharmacists—R. E. Blankinship and A. J. Bowles, both of Roanoke; Mrs. W. B. Boyd, of Mineral; T. E. Carper, of Gate City; C. L. Coleman, of Richmond; R. J. Connor, of Stuart; C. L. Halstead, of Norfolk; E. G. Johann, of Richmond; L. C. Leatherland, of Alexandria;

W. E. Locke, of Richmond; P. M. Massie, of Lynchburg; J. R. Ortega, of Dendron; C. H. Thomasson, of Emmerton; M. B. Turner, of Front Royal; and W. B. Wilson, of Orange.

As assistants—A. A. Arnold, of Franktown; T. H. Bryan, of Norfolk; S. P. Buchanan, of Coeburn; H. R. M. Cecil, of Dublin; W. G. Crockett, of Tazewell; W. C. Gleason, of Portsmouth; E. A. Hale, of East Radford; H. R. Hamlett, of Honaker; Frank Hogshead, of Staunton; V. R. May, of Richmond; R. E. Monroe, of Purcellville; R. L. Ogg, of Craigsville; F. S. Otey, of Wytheville; C. D. Rady, of Richmond; B. M. Roberts, of South Richmond; R. T. Scott, of Richmond; R. W. Staton, of Roanoke; H. M. Surface, of Richmond; T. J. Williams, of Buena Vista; and L. C. Wombell, of Richmond.

The next meeting of the board will be held at Richmond, October 17th.

Wisconsin Board.

Sixty applicants for registration were examined at the meeting of the Wisconsin Board of Pharmacy held July 11th to 14th. The following thirty-two were successful:

As pharmacists—L. W. Byron, of Madison; W. H. Cooper, of Bangor; A. A. Johnson, of West Salem; E. A. Lorch, of Madison; O. E. Nelson, of Marinette; A. R. Schmidt and B. S. Schoenkerman, both of Milwaukee; Dean Swift, of Edgerton; Robert Thieman, of Sheboygan; R. J. Tiedeman, of Madison; A. G. Wepfer, of Neillsville; W. H. Widule, of Milwaukee; B. A. Wiechmann, of Wausau; L. F. Winterburn, of Neenah; and H. F. Zimmerman, of Milwaukee.

As assistants—R. E. Alf, of Columbus; Harold Baebenth, of Kenosha; Alfred Bjerke, of Eau Claire; E. C. Deno, of Waukesha; E. F. Flintrop, of Milwaukee; F. J. Houghton, of Waukesha; G. H. C. Hoyer, of West Bend; O. A. Hoyer, of Watertown; Arthur Jensen, of Withee; A. P. Malone, of Waukesha; A. E. Manthei, of Ripon; J. G. Matt, of Milwaukee; A. E. Potter, of Oshkosh; Lawrence Ramsey, of Milwaukee; L. D. Stephenson, of Madison; Herbert Villmow, of Milwaukee; and Charles Whitebread, of Washington, D. C.

F. G. Stenicka, of Chicago, Ill., was registered under the reciprocal relations of the board with the other boards constituting the Interstate Association of Boards of Pharmacy.

The next meeting of the board will be held October 3d to 6th, at Madison.

Well-Known Philadelphia Store to Move.

After a continuous location for more than half a century at 1410 Chestnut street, Philadelphia, the Llewellyn Pharmacy, now owned and conducted by H. C. Swartley, will shortly be removed to a new building at 1518 Chestnut street. Mr. Swartley has purchased this building, which is being entirely remodeled with a view to affording greatly improved facilities and more room for the needs of his business. The store is one of the best-known in Philadelphia, and its reputation as a prescription pharmacy is country-wide. The business was begun in 1857 as Hubbell's Pharmacy.

An interesting feature of the store's history is that the three pharmacists who owned it since Mr. Hubbell retired, all started to work in the store in a minor capacity. The second owner was Dr. McKelvey, who had been a clerk under Mr. Hubbell. The next owner was W. H. Llewellyn, who had been a clerk; and, a few years ago, Mr. Swartley, who had long been in the employ of Mr. Llewellyn, assumed ownership. Another interesting feature is that each of the owners is said to have accumulated a fortune in the store.

J. W. Beckwith, formerly a pharmacist at Flushing, N. Y., is now a farmer at Strathmore, Alberta. The transition from an apothecary shop to the broadest plains and wildest scenes in civilized North America must be so great as to make ex-Brother Beckwith dizzy for a while.

Galvanizing the clerks is an effective way of transmitting the advertising current to the customers. Sales increase in direct ratio to the interest and enthusiasm of the salesmen.—*System*.

He is now Grandpa Bodemann, since Wilhelm Robert Julius Eichenberger's arrival, August 5th, and maybe he isn't as fussy about it as if he were the whole thing.



DRUG STORE MERCHANDISING

Advertising for Retail Druggists.

Among the Men Who Live and Think Advertising—
Honesty in Advertising—Advertising as an Investment—A Belief in Advertising an Aid to Success.

By M. P. GOULD.

During the first week in August about 2200 men interested in advertising came together from various parts of the country at Boston to the seventh annual convention of the Associated Advertising Clubs of America. In this company were publishers of newspapers, publishers of magazines, advertising managers of manufacturing concerns, solicitors of advertising, manufacturers of advertising novelties, painters of out-door signs, booklet distributors, advertising agents; in fact, every phase of advertising was represented.

The remarkable thing about this great convention was the sincerity and the interest with which those attending took hold of the problem of advertising. The advertising managers of the various big national advertisers met in a conference of their own. They were trying to find out all the possible ways of making advertising more effective. One afternoon, in a general sitting, a publisher of a Michigan newspaper stirred the visitors deeply by putting stress on the point that the publisher hurt the influence of his own paper if he printed in it advertising which was not true.

On another day the advertising agents spent considerable time in discussing whether it was ethical for an advertising agent to publish a periodical in which he printed advertisements for newspapers and magazines. This question was discussed because some of the craft believe that an advertising agent must be unprejudiced, must study the actual worth of every magazine and newspaper and every other form of advertising from an unbiased standpoint so that he can give his clients an absolutely unbiased judgment as to which forms of advertising and which mediums will pay the advertiser best. Some there were who thought that, when an advertising agent publishes a paper of his own and accepts or solicits advertisements from newspapers and magazines, the money which the other medium pays for the advertisement is but another form of a bribe to induce the advertising agent to advise an advertiser to use the magazine or newspaper in question whether it is suited to the advertiser's needs or not.

At another sitting the discussion, a very lively one, had to do with the establishing of a one flat rate by every

newspaper. That is, each newspaper should make the same rate to its little retail customers as to the big department stores; the same rate to the national advertiser as to the local advertiser; the same rate to an advertising agent as to a national advertiser. In other words, the newspapers should be just like the big magazines, have one rate for everybody and not favor one class of advertising more than another. If such a condition could be established it would be a great thing for everybody, the newspapers included.

The one note which seemed to run through the entire convention from start to finish was the desirability of strict honesty and high standards of ethics.

It was generally recognized that the better magazines have done a great thing for the whole United States and for all classes of people by refusing to print certain advertising held to be questionable and by setting a high standard for the kind of advertising which they would print; in other words, making their pages clean and attractive. Representing every class of advertising there were men at the convention who seemed anxious to cut out from advertising anything that was questionable, anything that was insincere, anything that detracted from the respectability of advertising.

At one meeting a public accountant who is known all over America for the great work that he has accomplished in examining great corporations, read a paper dealing with the question of whether advertising should be entered in the account of the advertiser, as an expense or an investment. He pointed out very clearly that, with a reputable house, doing a successful business, no matter how small the house was, advertising should be charged on the books as an investment adding to the value of the business advertised.

This is a point which every druggist ought to consider. So many retailers are in the habit of thinking that advertising is an expense; that it is a form of fixed charges which they must carry; that it does them very little good—but they are unwilling to stop it. Some even go so far as to look upon it as a form of blackmail. It would have done such people a world of good to hear this public accountant before a great convention giving his experiences based on the examination of the accounts of many different concerns of all kinds to show how a business which advertises well can be sold for more money, all else being equal, than one that does not advertise well, and that the difference in the prices for which the two would sell would be the amount invested in advertising.

Every retail merchant should be a member of the local advertising club if there is one in his town. If there is not

he should join a club in a near-by city, because the retailers and manufacturers and big corporations realize that a billion dollars a year spent in advertising warrants the most careful study of the possibilities of advertising.

The retailer who spends his money in advertising, without studying human nature, is bound to waste a large part of his advertising investment.

So many retailers keep on advertising in the same old way year after year. They seem to forget that:

"Thus times do shift—each thing his turn does hold;

New things succeed, as former things grow old."

Advertising has changed the whole method of conducting retail stores. It has changed the viewpoint of the store-keepers themselves. It has made retail merchants more honest. It has given the buying public more confidence in retail stores. It has educated the public to know

Now the retailer who does not bear these facts in mind cannot do his advertising as he should. The retailer should keep sight of two things all the time. First, he should try through his advertising to share in all general and local advertising. Secondly, he should with his advertising create new needs for

the goods which he handles. The question of how he can do these things is his problem of advertising.

The dealer who sticks so close to the task of selling that he cannot get a clear mind to think over the methods of advertising is putting blinders on himself so that he can only see in one direction. He is handicapping himself. He is hobbling his commercial genius.

If the retailer will try to forget his habits and customs and prejudices, and just open his mind to the reception of new ideas he will very soon find himself acquiring progressiveness. If a man is sent out on to the street to pick up papers he will after awhile see nothing but papers on the street. He will grow to believe that a great part of the population is spending its time throwing papers on the street for him to pick up. If the retailer looks at advertising in the right light he will very soon find that it is a constant stimulant to his ambition, a constant means of his seeing and working out new ways of getting business. His store will soon take on a progressive appearance because he will find that the more he puts new life into his store the more new customers will put money into his cash register. A man cannot work with advertising and not wake up and become ambitious.

The man who treats advertising as a carrying expense had better stop it altogether, because treated in that light it does him no good; it is a waste of money. He who treats it as an investment will try to make that investment pay; and as he tries seriously to do that he will soon find the ways to make it pay.

Opening for a Drug Store.

On the Sun River irrigation project about twenty-six miles west of Great Falls, Mont., a public auction will be held September 27th, at which time a number of choice business and residence lots will be sold for cash in the government townsite of Simms. There is need at this time for a drug store to supply the needs of this rapidly growing community. At the present time settlers are obliged to drive to surrounding towns, at considerable trouble and cost.

The statistician of the reclamation service at Washington, D. C., will be glad to furnish, upon request, detailed information concerning this country, its resources, and opportunities.

The Plunge

A big "roomy" sponge, a cake of dainty soap, a full-sized bath towel, a tin of talcum powder, one of our special bath sprays, and there is no regret for seashore or lake. Here's an outfit for \$2 that will give you a hundred dollars' worth of luxurious bathing.

(Name and address)

Prescriptions

At all times the health must be carefully guarded; particularly now in the changing seasons. Do what you can to prevent sickness—but, if it come, place the responsibility of supplying the medicines upon us. Bring every prescription to us and know that you get the most active drugs, carefully and honestly compounded—for best results to the patient always.

(Name and address)

what real values are, not only in goods but in the service which the store should render its customers. Advertising has educated the public to new needs. It has taught them how to spend their money so that they may live better, dress themselves and their children better, have more comforts in the home; and it has taught them how to take care of their health better. It is constantly creating new needs in the public mind.

SODA

YOU don't appreciate soda until you try ours. So rich, luscious, icy, inviting and pleasing—any flavor you want, any combination. :: :: ::

CANDY

DELICIOUS chocolates, bon-bons and other confections of a hundred varieties. None purer, none more dainty or tasty can be made. In bulk or boxes.

(Name and address)

CIGARS

HERE are cigars to meet every smoker's fancy in strength and flavor. All sizes and shapes; domestic and imported tobaccos. One at a time or by the box.

Does Advertising Pay?

Some Kinds Do Not—He Is a Wise Man Who Knows
What Kind to Avoid, and How—Side-Stepping
the Advertising Grafter.

BY VICTOR LAURISTON.

"It pays to advertise," murmured Wilkins mildly. "Say, Jimmy, when did that fellow say his ball game came off?"

"Tuesday. Going to bet on the Sarnia bunch?"

"No. I was just curious."

"Take it from me, boss, we'll lick 'em to a frazzle, even if it is on their own grounds and——"

"Their own grounds!"

Wilkins jumped a couple of feet, and came down with a mournful whistle.

"Stung again!" he muttered.

He strolled thoughtfully down the store, and, gazing past the elaborate window display of toilet soap at three cakes for a quarter, watched the passers-by on Main street.

"Here I've paid a dollar for the privilege of having my advertising printed on the back of five hundred score cards of the Sarnia-Carisdorf baseball game, only to discover that the game comes off in Sarnia. And I'm trying to do business in Carisdorf. Oh, advertising pays all right—that kind!"

He grimly addressed the tall red and yellow and green bottles in the corner of the window. Concluding, he retreated thoughtfully behind the dispensing case, where, resurrecting a big ledger, he reflectively turned the pages. Across the back of the fat cloth-bound volume were the words, "Bobbey Drug Store," in imposing capitals, printed in red ink.

"Advertising account. Advertising account," said Wilkins, over and over, doubtless on the principle that calling the account by name would help him to find the desired page. "Tom Bobney used to charge every item he paid for advertising. Ah—here we are!"

In Tom Bobney's scraggly, irregular hand the portentous word "Advertising" staggered across the head of a ledger page. From item to item, from column to column, from page to page, the eye and pencil of Wilkins followed the tale of Tom Bobney's advertising exploits. Certainly, if advertising paid, Tom Bobney should have rolled in wealth instead of suffering his store to be sold in foreclosure proceedings.

"Theater programs—concert programs—school concert—subscription to ball team—hospital subscription—Grace Church Ladies' Aid—St. Martin's Church missionary fund—hotel blotter—Central Church building fund—gun club—show tickets!" Wilkins paused, with a whistle. "Well, if there's any kind of advertising—except worth-while advertising—that that poor old goat didn't butt into, I'd like to know what it was."

Upon ascertaining the total amount, he whistled again, and more sharply. "No wonder the poor cuss floundered beyond his depth; five hundred odd dollars for advertising in a single year, and all the publicity he landed for his money wasn't worth five hundred stivers. And another poor cuss is going to flounder beyond his depth pretty soon unless he commences to touch bottom. Why, these skin games have cost me a stack of ducats already."

Jimmy gently kicked the counter, which, in store parlance, signified "Fore!" Wilkins, hastening "fore," found an aggressive-looking young man with a handful of tickets.

"Going to help us out, Mr. Wilkins?" he questioned. "Two tickets, I suppose?"

"What for?" asked Wilkins, casually.

"Football game," returned the young man, inconsequentially. "Fifty cents a ticket. You get your name on the subscription list as one of the patrons—good advertisement—help draw business, y'know. Tom Bobney always bought a couple of tickets. Draws a pile of trade from the sporting fraternity and——"

"When's the game?" questioned Wilkins, softly.

"Thursday afternoon at two."

"Sorry," murmured the druggist, regretfully, "but I can't get away. That's my busy hour."

"Oh, take 'em, anyway. Good advertisement, y'know."

"Sorry," returned Wilkins, still in the same subdued key, "but really, I don't know. I can't see where the advertisement comes in."

"See here, aren't you going to help us? If you don't——"

"Don't tell me, please," chirruped Wilkins, joyously, with the glint of battle in his eye. "I'll probably find out soon enough, for I certainly won't help you."

"You can just bet you'll find out," snapped the aggressive young man. "If you don't, my name ain't Hiram Jinks."

He clattered angrily out of the store.

"Jimmy," murmured Wilkins, "why is our Hiram angry? I told him I couldn't attend his football game. Why should I purchase a ticket when I positively can't go? Would Hiram Jinks buy toothache drops from me if he had a set of false teeth, or medicine if he didn't need it? Did Hiram Jinks ever buy anything from me, anyway—or did he ever buy anything from Tom Bobney, either, after Tom tried to collect that fifty dollar account of his that's still on the old books and always will be?"

Jimmy did not answer.

If Hiram Jinks seethed with anger, that was as nothing to the bubbling emotions of E. J. Scotten when, next day, Wilkins politely pointed out that he had no personal interest whatever in the reception in honor of the supreme pachyderm of the Antiquated Order of Elevated Elephants, and didn't feel like chipping in for the banquet to be tendered that exalted individual.

"Why," protested E. J., "a dollar's neither here nor there with you. And just think of the adver——"

"But," interrupted Wilkins, "I'm thinking of my friends in the order. I don't want to set them all by the ears."

E. J. Scotten stared.

"Yes. I know that if I were an elevated elephant—which, unfortunately, I'm not—and the supreme pachyderm visited my lodge, I'd feel like cussing if any outsider intimated that our order wasn't equal to providing him a royal welcome without begging for charity. Why, if a fellow came along and offered me money to help for a thing like that, I'd kick him from here to kingdom come. I'll never whisper a word of this to anyone, Scotten—I know you meant well, but I'm rather afraid that if the elephants come to hear of it they won't like the notion and——"

Scotten nearly fell over himself in his wild anxiety to escape.

Before the afternoon was through a committee of women called to solicit aid for their church bazaar.

"I would like to help you, really," declared Wilkins, "but to do so directly is against the rules of the store. However, I can assist you indirectly. Here is a fine line of combs, and you will notice——"

He told them about the combs. One of the women shifted nervously.

"But, Mr. Wilkins——"

"Ah—you prefer something like this, I should judge—an article especially suited to anyone with a distinctly youthful appearance. Now, these combs would cost you ninety cents a pair if you ordered them from a city department store, and you'd have postage and incidentals besides. I am able to offer them at the amazingly low price of fifty-nine cents, so that you save thirty-one cents on each pair of combs. That will be ninety-three cents for your bazaar if you each purchase a pair—forty-three cents more than you asked me to contribute."

Wilkins watched with satisfaction their precipitate retreat.

"The minute she can give the others the slip that youngest one will be back here to buy those combs," the druggist muttered with conviction.

Except for a committee asking a prize for the school sports and several individuals with "advertising" propositions which wouldn't wash, the next few days passed uneventfully. The individuals came to beg and remained to listen to interesting talks on quality and price.

The third day brought an honest-faced, straight-forward, clear-eyed young fellow.

"You believe in advertising, Mr. Wilkins," he remarked, pleasantly. "I have here the best advertising proposition ever offered."

He explained the proposition. It had to do with a school concert program. He himself was the teacher of a country school where the concert was to be held. The idea was to sell enough advertising on the program to pay for the printing and leave a good margin of profit. Finally, he unfolded the program, all mapped into little squares.

"This inch space costs only one dollar," he remarked.

"Only one dollar," remarked Wilkins, in a tone of sur-

prise. "Well, let's see. How many people will attend this concert?"

"Why, everybody in the school section and quite a few from outside."

"But, confidentially, how many—make an outside estimate."

"The school will be crowded—that's one sure thing."

"And your school seats fifty pupils. Put chairs in the aisles, allow for some people standing throughout the performance—you'll have probably two hundred people there, counting performers. Of course, your pupils take part in the program—"

"Ye-es—"

"Each young man takes his best girl, and each husband takes his wife. So, deducting the fifty or less pupils and younger children, and allowing for wives and sweet-hearts, there'll be at most fifty heads of families—no more."

"I—I daresay that's about it," muttered the teacher. Though he hadn't quite caught the drift of the argument, he apparently had a more than vague suspicion that the drift was not in his direction.

"So I pay two cents per family for a little announcement on the back of this program. Now the light in your school room will be poor. Hence, these people won't read except what is absolutely necessary. Most of them will come in couples and will be more interested in each other's conversation. Then, the program will take most of their attention. So that there's precious little chance of this advertisement being read at all that evening; and they won't likely take the program home, or, if they do, it will be just to light the fire with next morning."

Pausing, he gazed meditatively into the young man's honest eyes.

"See here, I like you," he exclaimed, suddenly. "But don't you know that for the same money I can secure an equal display space in a daily newspaper right here in my own city, not for three hours in a single evening, but for two weeks. Instead of fifty heads of households, the newspaper goes to nearly fifteen hundred in that city, and as many in adjoining towns. Each household averages five readers—but let that pass. Instead of paying two cents per household for people all outside the city for just one night, I pay one-fifteenth of a cent per household for twelve nights right inside this city—and secure the outside circulation thrown in for good measure. Why, friend, you surely wouldn't ask me to put money into a thing like that as a purely business proposition. I know you wouldn't."

But the young man did not answer. His jaw dropped appallingly. He blinked at Wilkins for several moments as though these statistics were beyond his comprehension. Then, without a single word, he tottered out.

"Jimmy," remarked Wilkins, after a long and solemn silence, "isn't it a ghastly procession? Honest skin games, well meaning frauds, highway robbery committed or attempted with the most praiseworthy motives! And it goes on day after day, day after day. None of these people ever think, either, of going to the private houses. It's the merchant, the merchant, the merchant—always the merchant. The merchant, Jimmy," he concluded, sadly, "is the man who can't get away."

Advertising Postage Stamps.*

Many stores sell some lines of merchandise on a narrow margin of profit, but there are few merchants who persistently advertise goods upon which there is no profit whatever. The only store we have ever heard of that does this is Swift's Little Department Store, of Los Angeles, Cal. Mr. Swift runs a variety store in a residence neighborhood, and for years he has been advertising postage stamps. And he advertises them just as though they were any other kind of merchandise. For example, every once in a while he comes out with something like this: "A Fine Assortment of Postage Stamps—New Goods Received Every Week—Latest Styles, Etc." We think that is pretty good advertising. It is advertising a public convenience and an accommodation that many people will appreciate.

There is interesting information at this office awaiting C. C. White, a soda-water dispenser, formerly of Cincinnati, Ohio.

* From the Merchants' Record and Show Window.

Pulling One's Self Out of a Hole.

The Story of a Man Who Found Himself "in Bad" with Respect to a Store He Had Bought, and How He Turned Defeat into Victory.

BY THE MAN WITH THE PULL.

I had come from the city and bought a drug store in a small town. I hated to admit it, even to myself, and postponed doing so as long as I could, but the evil day at last arrived when I had to admit that I was stuck. Neither the stock nor the trade was what I had expected and been led to believe it was. In short, I was facing failure—losing money every day the store was open. I had arrived at a point where something had to be done.

TOOTH BRUSHES.

One day an individual in seedy clothes and worn appearance called at the store and said that he had a bankrupt stock of tooth brushes on his hands which he wished to dispose of. I told him that I did not want the lot. He named an exceedingly low price, so low in fact, that I suspected him of having obtained the goods in a dishonest way, particularly as he did not look very prosperous. He convinced me that this was not the case, and finally I agreed to put his stock of brushes on sale on commission.

In a few days several good-sized packages of tooth brushes of all styles, grades and kinds arrived and these we piled in the show window in uneven heaps. We put a placard out, reading—

: YOUR CHOICE FOR 10 CENTS. :

Now some of these brushes were really of a high grade. I selected some for my personal use that were worth 25 to 50 cents easy enough. I selected a few more for the show case, but let the bulk remain piled in the window. I calculated upon disposing of some of the brushes in this way and intended to return the balance to the original owner.

The townspeople were not accustomed to seeing advertising done in this way. They had not seen heaps of goods piled in city-store fashion and put in at bargain prices. What was the use of going to the metropolis and spending time and car fare to get a bargain while the local drug store was offering just as great a bargain? I imagined that the folks argued thus as they looked in upon the pile of brushes in the window and went home and told others about it after they themselves had entered the store and made a choice of a good "quarter" brush for ten cents. In three days all the brushes were gone. The patrons not only cleaned out the pile of brushes, but many of them lingered in the store and bought other things.

A NEW STORE FRONT.

This brush sale set me to thinking. I thought long and hard. I sent for a builder and made a contract with him to tear out the entire front of my store, and in place of the somewhat meager glass front, put in a modern plate front well adapted to exhibition purposes. I had the window lowered to near the sidewalk level. The interfering posts and partitions were removed. Two weeks were consumed in doing the work and the cost was nearly \$400. But I had a plan in mind and determined to put it through or "bust." I had lost quite a sum of money since buying the store, and felt that things could not be much worse.

BARGAINS IN SOAPS.

As soon as the store front was right, and I had arc lights put in, and done everything possible to make the store attractive from the outside, I proceeded with my next step. I went to the city and visited the wholesale districts where bankrupt and bargain lots of druggists' goods were obtainable. One of the first bargains I located was in the toilet soap line. The soap looked all right and proved to be of good grade. The wrappers which were once gaudy and attractive were dusty, faded and shopworn. The soap boxes were broken and bent. But the soap itself was O. K. So I bought several barrels of the stock, which when new was neatly packed and listed at high prices. I got the soap so cheap for spot cash that I was able to make another heap in the show window, this time of toilet soap for three cents a cake. Now some of the cakes were not worth much more than

the price stated, but others were worth several times this value. Hence the chance for the bargain hunters.

I had ascertained that my brush sale had equipped a partly depleted community with tooth brushes, and now I was about to fit out the neighborhood with soap. I was more than a merchant; I was a missionary. Everyone who had bought brushes, and some who had not, seemed to come along during the soap sale to stock up with soap. Some even asked when the next special sale would be, and what would be offered.

I cleared enough on the soap deal to give me fresh courage. I wondered if it would not be a good plan to run a bargain window for a time each season for the purpose of disposing of old stock in quick time with moderate profits.

RUBBER GOODS AS A LEADER.

Next I undertook to handle a rubber goods stock which had been closed out by a rubber goods store. I obtained the services of a good looking sister of one of my clerks for \$2 per day and evening, to stand in the window with a waterproof garment over her shoulders, upon which fell a fine spray, in imitation of rain, from a spraying device put in by the plumber just overhead in the show window. The young woman stood in a zinc pan, which was furnished with a drain to carry the water away. Some green boughs were cut and distributed overhead to hide the pipes and below to cover the pan, so that the girl looked quite attractive in the surroundings, with the rain effect. There was a crowd about the window all the time. In the evening the exhibit was illumined by a spot light with various colors produced with stained glass. The spot light was made with a magic lantern set of lenses behind which was a gasoline vapor light of about 200 candle power.

The stock of rubber goods was disposed of at paying prices in less than a week.

CAMERAS, COLD CREAMS AND CUTLERY.

Next I began asking the people questions concerning what they would like next as a bargain. People also came to me and mentioned things desired. For the next six months I made reasonable profits on my investment in the store by handling bargains of bankrupt stores.

I sold a lot of cameras at ridiculously low prices and still I made a profit. In less than a week after I had the people supplied with cameras, I was obliged to establish a film and developing agency in my store and this agency cleared enough for me as time passed to make it quite an object.

Cold cream bargains, bargains in cutlery and the like came in turn and helped advertise my store and procure new business for me. I hired an additional clerk. I increased the pay of my two old clerks. I lost some hundreds of dollars on the original investment, but the store is making money for me now and I am satisfied.

Getting After the Vacationist's Trade.

At the beginning of the summer exodus, which is particularly heavy in their neighborhood, G. H. Hitchcock & Co., Sixth avenue and Fifty-eighth street, this city, sent to their customers and enclosed in all packages a card worded as follows:

G. H. HITCHCOCK & CO.,
Professional Pharmacists.

Wish to announce to their many patrons and the public generally, that they carry a very large stock of every thing usually supplied by pharmacists and that they have special facilities for shipping same into the country. They would be pleased to receive your order for anything desired in the way of drugs, toilet articles, sick room supplies, etc., and can guarantee that you will receive the best and freshest goods the market affords, and in the shortest time possible, delivered either to your country or city home. Too much care cannot be used in selecting a place for the filling of your prescriptions. The house of G. H. Hitchcock & Co. has a reputation to maintain in this line of work, made by using only the proper ingredients, in the correct proportions, and put together in a scientific manner. Your prescriptions should be intrusted to this house, which has the confidence of the physicians of New York.

Sixth Avenue and Fifty-Eighth Street, New York.

As between a good stand and poor service and drinks, and a poor stand and good service and drinks, the public finds little difficulty in deciding. But a good stand, good service, and good drinks is a combination that can't be beaten.

"Detailing" Physicians.

Some Essential Qualities which Must Be Possessed by the Detail Man—A Good Man Behind a Good Preparation Means Success.

By EDWARD C. LAVERTY, M. D.

[The following article on "detailing" is by a physician who has done work of that nature in a large way. What he says should prove of interest to druggists who wish to engage in a similar line of work.—Editor THE DRUGGISTS CIRCULAR.]

Doing detail work among physicians is one of the most profitable occupations that a pharmacist can engage in. The druggist who pours from one bottle to another a preparation made by some distant house, and prescribed by a physician, is merely a merchant, as by so doing he allows the manufacturers to reap the large share of the profit on the sale of the preparation. But the pharmacist who makes his own preparation and also dispenses it upon physicians' prescriptions, not only secures the larger profit of the manufacturers but that of the retailer as well, and at the same time raises himself out of the class of mere merchants.

For the pharmacist to find fault with the physician for prescribing a certain preparation made by a distant house when the pharmacist himself has an equally good home-made one, is extremely poor business policy and for him to undertake to substitute his own make for the one specified in the prescription is not only suicidal from a business point, but may result in placing him in jail. What, then, is the pharmacist to do? The answer is plain: He must try to induce the physician to specify the home-made preparation in the first place, and one way to do this is to call on him in his office, have samples of the article and advertising matter with him, tell him what is in the preparation and suggest reasons for believing that the combination is a good one, and by every means in his power endeavor to make on the physician's mind an impression favorable to the article he has to offer. This is what is meant by "detailing."

Like other forms of advertising, "detailing" is cumulative in its effects. One call on the physician may show no immediate result. A second call may prove disappointing in its effect. By the time a third or fourth call is made, the physician may begin to believe that there is something in the man and in the preparation he is handling. Later calls and a few trials of the medium may convince him that his belief is well founded, and, if the pharmacist keeps up the good work, in time he may enjoy a steady demand for a preparation which yields him both a manufacturer's and a retailer's profit. When this comes about he is on the road to "easy street."

It has been said that good salesmen, like poets, are born, not made. The detail man is a salesman, in that his efforts are to stimulate a demand for the products he represents; thus his work is indirectly the most important part of the selling end of his particular line. I believe, however, that good detail men, like good salesmen, may be made as well as born.

The qualities necessary for good detail work are much the same as for successful salesmanship, namely, honesty, enthusiasm, hard work, knowledge of one's business and the products he represents, absolute confidence in his line and the firm behind it, good health, good appearance, and the ability to keep the tongue well under control. Any of these qualities not a natural possession can be acquired by determined effort.

Honesty is one of the most important elements of success. A detail man is a fool to be otherwise than honest. Absolute fairness and straightforwardness is the only kind of dealing that will get good, permanent results.

Enthusiasm is a very important quality. The detail man should know his line, be sure it is a good one, backed by a reliable concern, then believe in it and the firm to the extent that he can inspire the confidence of the physician in both. He should maintain enthusiasm in his work to the extent that he will not be afraid of working over time. Getting good results should always be the object in view.

Detail work is no easy matter. To get results requires hard mental and physical labor, mental labor being a necessity with those who would cope successfully with the

different kinds of human nature with which the detail man has to come in contact.

Knowledge of the line or preparation is essential, but great care must be used not to reflect on the intelligence of the physician or to consume too much of his time in telling him facts about chemistry and physiological actions that he already knows. Here is where the control of the tongue comes in.

The object of the detail man's visit to the doctor is to call his attention to the merits of a certain preparation, the ethical way in which it is handled, and the reliability of the firm behind it. This should be done briefly and in a courteous manner. The result should be that the caller has so favorably impressed the doctor that he will remember the preparation when writing a prescription long after the caller has gone.

One thing for the detail man to remember is that while he is not expected to send in orders, the sales in his territory depend on his efforts entirely.

The writer's experience in detail work has convinced him that the task of the detail man is much more difficult than that of the ordinary salesman. The salesman endeavors to close his sales on the spot, while the detail man has to depend on the impression he has made to get results—he must overcome the "out of sight out of mind" handicap.

The detail man is the direct representative of the firm to the doctor, and the success of the preparation he is presenting is due almost wholly to his efforts. Hence he must be a high-grade man and should receive the compensation of such. It is hard to understand why a firm that proposes to put out or already has on the market a worthy preparation will intrust such important work to a cheap man, or as is frequently the case, to a foppish young bigot whose real object for taking the job seems to be to travel around and have a good time. The sending out of cheap, ungentlemanly or incompetent men to do detail work has resulted in a rule now very generally found among busy physicians, not to see detail men.

It should be borne in mind by all detail men that sobriety, good appearance and gentlemanly bearing are essential factors in producing desired results.

Discounting Bills.

Among the topics submitted to the members of the Pennsylvania Pharmaceutical Association for discussion at their recent meeting, was this: "Advantages which accrue from discounting all bills."

In a paper on this subject, Franklin M. Apple mentioned some of the advantages which occurred to him. Discounts for prompt payment of bills, he said, are really premiums paid to the retailer by the jobber, and are all profit. The man who did not discount his bills not only failed to receive this premium, but often actually paid the jobber a premium. For corroboration of this statement he referred to any "one of those poor mortals who has been misled into the position of conducting a drug store without sufficient capital to finance it properly, of which class, unfortunately, we have a great superabundance."

Competition in and out of the ranks of his fellows forces the druggist to buy in the lowest possible market, and this market is open only to the man who discounts his bills.

The habit of discounting bills made a merchant more systematic in his business, which was noticed by the public and duly rewarded. Failure to discount had the opposite effect.

Many dealers, retail as well as wholesale, prefer to do a credit business, as credit customers, generally speaking, buy more than they would if they had to pay cash.

Bankers to whom retail merchants apply for loans are more favorably impressed by the man who discounts his bills; so also are mercantile agencies, which frequently rate such men higher than others who have more property but do not discount.

One hundred dollars turned over every ten days at 2 per cent. yields \$73 a year in discounts alone—a very good rate of interest.

The non-discounting merchant imposes a penalty upon himself for procrastination.

The marriage of David S. Schandler, of the Wentworth Drug Company, of Chicago, and Miss Sarah Salem was recently announced.

Function of the Soda Fountain.*

Few popular American inventions are more characteristic of the national genius than the soda fountain. It is practical, it is simple, and it serves a useful purpose. When hot weather comes, the normal physiologic instinct is to drink more freely than at other times. Water is, of course, the standard human beverage; but it is not always easy to get good water, and the human passion for variety craves something with a different flavor. This desire for a new taste was probably at the bottom of the earliest use of alcoholic liquors; the constitutional effects were a secondary affair. There are still those who seek to quench the increased thirst of hot weather with wine or beer. But if alcohol is a bad drink at all times, it is worse when the thermometer is highest. With their innate good sense, therefore, the majority of the American people turned from the bar in quest of harmless and thirst-slaking drink, and the problem of their search was solved by the soda fountain.

The soda fountain bubbles with the versatility of the American character. It contains many possibilities within its limited compass. Originally it was designed merely to dispense aerated water flavored with various fruit extracts. The effervescence and the flavor contributed the two essential elements of a refreshing drink. Gradually, however, new elements were added. The same American genius which had shown itself in the invention of the cocktail, found in the domain of temperance drinks a new field for ingenuity; new mixtures and combinations were devised, until now the nomenclature of the soda fountain is as complex as that of any science. In the first place, there still remains the fundamental category of plain sodas; then there are all these plus ice cream or plus phosphates, or plus an egg or plus any two or three ingredients. The addition of the egg was an important step, for that introduced the element of nutrition. Many a hustling American business man, who would formerly have gulped a whisky raw, followed by a chaser, or would have gone empty, now drinks his egg phosphate, and returns to his business refreshed and to his home good tempered. The soda fountain has helped the morals and the health of the American people.

There are numerous other mixtures with strange names and unfathomed composition—the sundaes and the fizzes and the freezes and so on. Most delectable perhaps is the lime freeze, made of lime juice, mint, ice, and soda water. A perfect substitute for the pernicious and seductive mint julep. It is in the preparation of these mixed drinks that one sees the soda fountain at its best. The decorative stand, the mysterious compartment—from which fluid flows on the pressure of a knob, as Faust's wine flowed from the table—the tinkle of glasses, the cool clink of ice, the fiz of the soda, have all the fascination of a fully equipped bar; and the attendant, in white duck coat and apron, tossing a dash of phosphate into your drink, and then shaking the whole to a foaming mixture, assumes all the friendliness of the bar tender without any of the latter's diabolic possibilities.

To a physician there are, of course, suggested possibilities of evil in the soda fountain, as in all other things. There is the possible transfer of infection by improperly washed glasses; but after all, this risk is little greater than in the average restaurant. There is also the risk of infection from ice cream; but this risk, too, is present elsewhere, and the prudent may abstain therefrom. In the main, the soda fountain has few objectionable qualities, and these are far outweighed by its merits. It is clean, it is wholesome, it is attractive. It combines cheapness and convenience with estheticism in its ministrations to human thirst. It is perennial, for it can dispense a whole new category of hot drinks in winter. It is a great, civilizing agent, a triumphant manifestation of clear-headed, practical American genius.

In dismissing the case against Jacob Dultz, of Newark, N. J., in which the defendant was charged with illegally refilling a registered bottle, the municipal judge, before whom it was tried, said that the evidence did not show a violation of the intent of the law because the druggist had merely put carbolyzed water in a bottle brought in by an agent of the mineral water company owning the bottle in question.

* Editorial in the Boston Medical and Surgical Journal.

No Store Better than Its Clerks.*

By C. A. C.

Are you an ordinary clerk; or a "live-wire clerk?" The ordinary clerk is in a rut—a rut as deep as the grave; he's buried in habits—routine, prejudices, petty jealousies, ignorance of the goods, and a score of other ills. The "live-wire clerk" is the one who doesn't know it all! In fact, he admits that there are lots of things which he is not familiar with—but he wants to learn, and he is always learning. He keeps both eyes open for the main chance, and when it comes he's the one that seizes it, or is seized by it, while the ordinary clerk wonders why the live one is "so lucky."

No amount of advertising, no matter how good, will give a store a better reputation than that given it by those who work behind its counters. Did the customers you served to-day leave the store with a better or a worse impression of the store in which you work? To make good first impressions is important, for they're generally lasting impressions.

When a customer is permitted to stand around for five minutes before anyone speaks to him he becomes justly irritated and leaves the store with a bad impression.

Several weeks ago while in Kansas City I saw in the local office of the Postal Telegraph Company, the heading, "The Employee Is the Company" on the card shown herewith. I read the rest of it, and you will, too. It struck me as being one of the strongest sermons on service that I had ever seen—and I resolved to show it to you. Now re-read it—study it and apply it to yourself; it's worth while.

THE EMPLOYEE IS THE COMPANY.

It is a fact that the public regards the representatives it meets and with whom it transacts business as the company itself. We know this from our personal experience in stores, for instance. If we are well treated by the clerks, if they are pleasant and affable, if they impress us by their alertness and their knowledge of their business, our trade naturally gravitates toward that store. We like to go there; we are glad to tell our friends about it and to influence their patronage in that direction.

So it is with the representatives of the Postal Telegraph. The public receives its idea of the company largely through you. You are the ones they meet and from whom, as a rule, they form their impression of the company itself. Hence, it behooves all to be efficient, alert, honest and obliging, since in so doing we not only build character for ourselves, but we likewise give character and reputation to the company we serve.

Edward J. Nally,
Vice-President and General Manager.

Take a mental note of your clerk acquaintances, especially the older ones. Size them up. How many of them are "satisfied"; and how many are endeavoring to climb upward to a position where they can give their families and themselves a better living and at the same time be of better service to their employer and the world?

If you're in a rut—climb out. If you're out, stay out.

You want greater business-building, money-making, result-producing ability. How are you going to get it? The answer comes in one word—study. Not books, but yourself. What are your weak points? Reinforce them.

A New York business man, a shrewd one, too, and a big advertiser, once said, "Give me, every time, the clerk who watches my ads." There's a hint for the clerk who wonders why he doesn't forge ahead.

Study your employer's advertising—and his competitor's advertising.

Study also all the printed matter that comes from the manufacturer—you'll get valuable hints from it all, and it will help you to know the goods. You can't sell goods without knowing something about them; and you'll never know so much about them that you can't get new ideas about them from other people. Read all the trade papers that come into your store; you yourself ought to be a subscriber to several, one at least for each line of goods that you sell. It has been said that a clerk, or dealer, who "hasn't time to read trade journals" is like a preacher without a Bible, concordance and commentaries. A lawyer without a library or the regular issued reports of recent cases is a better simile, for new "cases," new situations and new methods are always developing in business; and they're reported in the trade journals.

The store and the clerk must be cleanly and attractive. Dirty windows and showcases, a litter of boxes, etc., are repelling. So is a dirty collar, filthy apron, soiled shirt,

unpolished shoes and an unkempt face. But nobody ever saw a clean store with slovenly clerks, or neat clerks and an ill-kept store.

A clean store with clean clerks is the place where business goes—whether it's a paint store or a jewelry shop.

Be enthusiastic. Enthusiasm is the torch-flame that melts obstacles.

The man who coaches the chorus for the popular musical comedies is always emphasizing upon his pupils the potency of the smile. He tells them to smile. He tells them to show their teeth. You, too, must smile; there's no argument equal to a happy smile. But while being cheerful and courteous, be not over-cordial. A clerk can be so delightfully entertaining that he'll have half the town hanging around his employer's store—but probably the other half, who buy the goods, are succumbing to the careful courtesy and the sincere smile of some serious salesman. Be enthusiastic, courteous, smiling and yet "all business."

When a patron enters, greet him. Never serve a customer with your hat on, if you're inside, and never with a cigar in your mouth. If everybody is busy acknowledge his entrance with a smile and some pleasant assurance that he will be waited on soon. He will generally await your convenience, once his own good nature is thus secured.

Confidence in the goods is of supreme importance in your sales talk. You or your employer can sell an inferior or "wrong purpose," or substitute can of paint or varnish to one man once, but if he is misled it's mighty hard to sell that man anything—good or bad—thereafter. Sell your goods in such a way that you will gain confidence in yourself and from the public. Have confidence in whatever goods you recommend. If you get a complaint never say "That's impossible"; instead, take time to investigate the case, and be courteous about it.

The Marshall Field clerks are instructed always to make the customer feel that probably he is right; then they investigate.

Sir Thomas Lipton gives this advice: "To the young men who are filled with aspirations towards success in business may I here say a few words of advice? Always beware of strong drink. Remember cork screws have sunk more people than cork packets will ever save. Always be civil. Try to treat rich and poor alike. Is not the poor man's twenty shillings as good as a rich man's pound? The workingman's wife with her basket on her arm is entitled to as much respect as the lady who comes in a carriage."

And don't forget the value of time. You can't loaf on the job fifteen minutes to-day, and say "I'll make it up to-morrow." At the close of to-day, to-day is gone—lost forever; and "to-morrow never comes."

Your aim should not be so much what you get, as what you do for what you get; and your employer will be glad to help you do more and do it better. Get busy, spruce up, get going, be ambitious. The only really unhappy people on this earth, rich or poor, are those who are willing to "stand still" instead of keeping up with the procession—those who are forging forward toward the band are the happiest of all, happier even than when they get in the wagon, for the ambitious youngsters make their seats precarious. Playing the game is the real fun; and he who plays it hard and fair is the one who gets the really good things out of life.

At the request of Dr. J. S. Crumbine, secretary of the Kansas Board of Health, the State attorney-general recently ordered the arrest of a man at Hutchinson if this man attempted to use his "mad-stone" in an effort to cure persons bitten by a dog.

The city solicitor of Omaha, Neb., has advised the municipal police that druggists may not sell malt liquors, apparently including extract of malt, under their liquor permits.

The San Joaquin Drug Store, W. H. Pring, manager, of Stockton, Cal., distributes as advertising picture postcards depicting the various departments of the store.

De Baun VanAken, of Amsterdam, N. Y., has been elected president of the merchant's association recently organized by the merchants of that town.

The newspapers have it that an Asheville, N. C., drug store was obliged to close its doors recently because the employees went on a strike.

* From the Paint and Oil Dealer.

Profitableness of Hot Soda.

Some Figures of Small Cost and Large Returns—
Hunger and Thirst Both Call for Hot Drinks—
Hot Soda Is Easy to Make and Serve.

BY AN OLD HAND AT THE BUSINESS.

Viewed from the standpoint of the man who wishes to make the most money from the smallest investment, the hot-soda business is an attractive proposition. At the outside, he could not possibly spend over one-tenth as much for his hot-soda equipment as he would spend for a soda fountain that would bring the same amount of business daily.

Single urns for heating water only may be bought for from \$5 to \$8. Two-compartment urns, holding 2 to 5 gallons of coffee or cocoa and 4 to 8 gallons of water cost from \$20 to \$30. And urns with three such compartments are to be had at from \$3 to \$5 more, the big twin urns costing in the neighborhood of \$50. The buyer has the option of using gas or gasoline, as makers will equip urns with the burner required for either fuel.

SOME FIGURES.

Dutch-process cocoa can be bought for 28 cents a pound in 100 pound lots. A pound of this cocoa powder will make two gallons of hot-soda syrup when combined with sugar-syrup costing about 35 cents a gallon. That is, the 2 gallons of cocoa syrup, enough for from 120 to 150 cups of hot cocoa cost about \$1. Including cocoa, sugar, a couple of wafers, and a paper napkin the finished drink can be served at a cost of 1½ cents a cup. Milk cocoa made with a syrup containing 6 ounces of powdered cocoa to the gallon—1 ounce of syrup to the cup—costs less than 1 cent a cup.

Of the food drinks those made from beef extracts are probably the most popular. And the profits on the beef beverages are exceedingly large. Nearly all the beef extracts are used in the proportion of a teaspoonful to a cup. In other words, ½ ounce of beef extract makes one cup of bouillon, or, in theory, 128 cups to the pound, the pound of bouillon costing in the neighborhood of one dollar or less, according to the quantity bought. No cream or sugar has to be added to these drinks. As there is more or less loss in the serving of any liquid extract, dispensers everywhere take kindly to the beef bouillon cubes, because they know that when they buy 100 cubes, they are buying the raw material for 100 cups of bouillon. These cubes cost something less than \$2 a hundred, according to quantity.

Tomato bouillon is a more expensive drink, costing between 4 and 5 cents for the finished cup, and must be sold at 10 cents to make an adequate profit.

Clam drinks are also expensive because of the high cost of the extract. Generally speaking, it costs 3½ to 4 cents to make a cup of clam, or malted clam, bouillon; but if well made with good juice and fresh butter there is no trouble to get 10 cents a cup for it. Plain clam broth, or clam tea, as some call it, can be made at a cost of 3 cents a cup.

Of the popular hot beverages, the malted milk drinks are the most expensive. A fact which many dispensers seemingly overlook is that malted milk is an expensive product. It takes about 1 ounce of the malted milk powder costing 4 cents, and ½ ounce of cream costing about ¼ cent to make a glass of malted milk, which is sold at 10 cents. For a one-egg plain malted milk the cost is from 2 to 5 cents higher; and a malted milk egg chocolate will cost from 8 to 12 cents a glass. There certainly is no profit in selling the egg-malted-milk drinks for less than 15 cents.

Now and then a customer is met who wants ice cream in a hot drink, but this is only a fad and a not extensive one. In general the ice cream bill at the hot drink fountain is nil. Customers who will pay 10 cents for ice cream soda are usually willing to pay 10 cents for a hot drink; while the man who must, or thinks he must, serve ice cream soda water at 5 cents a glass, cannot get any more for hot drinks. But, at that the cost of the other ingredients that go into ice cream soda is as much as the entire cost of the hot beverage.

OPERATING EXPENSES.

Gas or gasoline costing from 75 cents to \$1.50 a month will furnish all the heat that is necessary for a good sized hot soda outfit. It probably costs the average hot soda dispenser not to exceed \$1 a month for fuel. Compare this

with the price of the ice required in operating a soda fountain that will do the same amount of cash business. Comparisons may be odious; but in this case there is a reason that is obvious.

Also, because the serving of a hot drink does not require the talented chemist-chef of the fancy summer drink counter, there is considerable saving in the cost of attendants. It is a simple matter to put a teaspoonful of extract or a beef bouillon cube in a cup and to draw hot water in it. Take it the day through, one dispenser will serve one-third to one-half more people with hot drinks in a given time than he can supply with cold drinks. Far less labor is required to keep the urns, silverware and chinaware clean than is necessary to keep a soda fountain tidy and the glassware spotlessly clean. The cold soda menu contains from fifty to a hundred items; a hot drink menu, not over ten or a dozen, so that there is not nearly the investment tied up in supplies.

But my desire is not so much to show the advantages of hot drinks over cold drinks as to demonstrate to the readers of the CIRCULAR that the two go hand in hand, that each helps the other, and that both are profitable. That the hot drink is a little less costly and a little more profitable, is no argument against cold soda water; but simply a proof that it is folly for any man to close down his fountain in winter, when a public thirst exists that is a golden opportunity entailing little effort or expense in the grasping.

As I said last month, the way to make the most money is to give the public its choice of hot or cold beverage, for no matter what the outdoor temperature, there are those—and they pass your door—who want hot drinks and those who want ice cream sodas on the same day. Side by side the hot soda and the cold soda will more than double the earnings of either alone.

Is Coca-Cola a Habit-Forming Drink?

According to the *National Bottlers' Gazette*, the following press dispatch from Gainesville, Fla., was recently published in the *Times-Union*, of Jacksonville:

Gainesville, June 2.—There have been, from time to time since the creation of this old world, famines of various kinds—water famines, ice famines, grain famines, and scores of others; but it falls to the lot of Gainesville to introduce the most unique famine ever—a coca-cola famine, and for the past two days not a drop of this beverage could be secured in the city, due to the fact that the railroads have probably carried the shipment due here to Gainesville, Ga., Gainesville, Tex., or some other Gainesville, for it has not shown up here, and as a result the town is wild—at least, that portion of it that is addicted to the use of this beverage, or whatever it may be termed.

Talk about the ravages of the fellow who likes his toddy and "runs in" to a dry town. Why, apparently, this fellow's trouble is nothing compared to those which haunt the fellow who must do without the black beverage which has made Atlanta famous. These coca-cola inebriates are easily identified by the eager manner in which they have sought the cold drink stands and pleaded with dispensers for "just a spoonful" of the essence if they had it. They are praying for every train to bring relief to the situation—and in the meantime the fellow who "gets his" from joyous jax has the laugh on the less fortunate. If something is not done soon it is anticipated that a coca-cola train will also be put on from the State's metropolis."

Pineapple Perfection.

He first squeezed the juice of half a lemon in the shaker glass, then he added about 2 ounces of crushed pineapple, a handful of cracked ice and one egg. This he shook up well, ran carbonated water into the shaker, tossed it back and forth a couple of times and strained into a serving glass. A little nutmeg on top and a couple of straws finished the drink, and he set it down in front of the Boss.

After a few sips the Boss remarked:

"That's fine, Jack, what is it?"

"Pineapple perfection, Mr. Jenkins."

"Well, it's sure good, get it on the next menu, Jack."—*Confectioners' Journal*.

The Indiana Board of Health has notified druggists, confectioners, and soda water vendors that, if they serve any syrup, crushed fruit, or ice cream prepared with an artificial color a notice to that effect must be posted in a conspicuous place in their place of business.

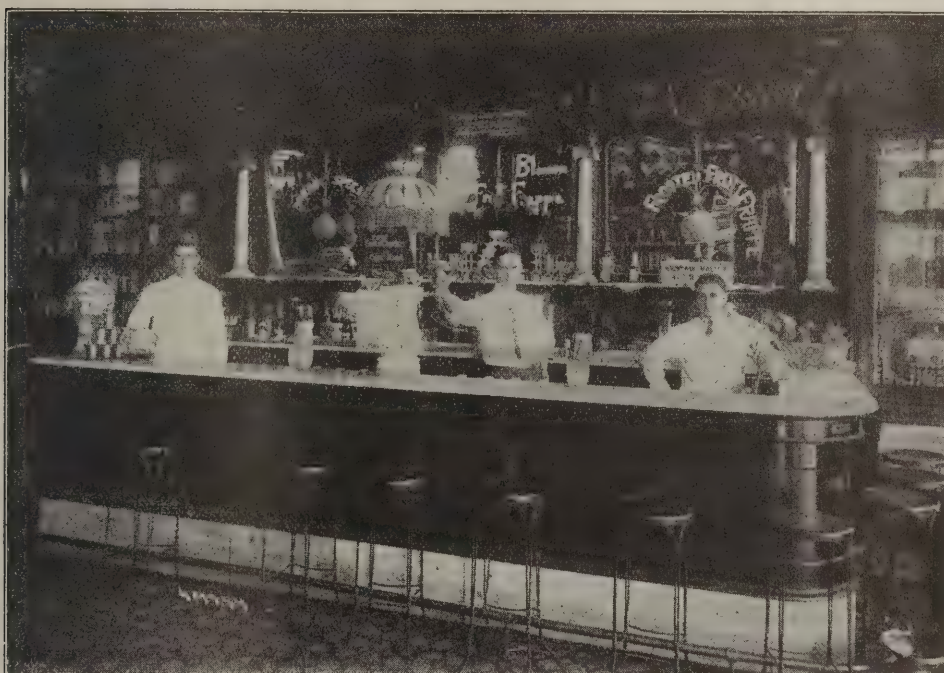
White coats are worn by soda dispensers in order that customers may see for themselves that the coats are clean; not, as seems to be supposed by some who wear them, to emphasize the spots of dirt which they bear.

Cold Soda at Hot Springs.

A soda fountain maintained at a high standard of service is one of the drug store's most valuable advertisements and drawing cards, in the opinion of F. P. Walker, president of the Sorrells Drug Company, Hot Springs, Ark., and he has found this form of advertisement especially creative of demand for the higher grades of sundries and toilet goods. The "high standard" is obtained directly through looking out for three things, cleanliness, quality, and service, and of these three, each one is of so much importance, says Mr. Walker, that no one takes precedence over the other.

"An unpretentious soda fountain plant can be made a popular one by having the fountain bright and shining," according to Mr. Walker, "while the very finest plant can be made uninviting by the presence of dust, dirt or dull finishings; high quality of goods is of necessity a factor; and without proper service the two already mentioned are at a disadvantage."

Continuing, Mr. Walker said: "The highest salaries are earned only by those who give their customers prompt and courteous service—and courtesy is so important that it should be given preference over an expert at the counter."



Sorrells' Hot Springs Fountain Which Mr. Walker Supervises.

"Our method of soda advertising is a simple announcement in the daily papers twice a year as to who has charge of our fountain for the season, and by the use of home-made white strips of paper 4 by 24 inches pasted on our windows as 'readers'—a new 'special' of moderate price is gotten out daily, and we have found that this new 'daily' will bring trade from beyond other fountains."

A close inspection of the picture of the Sorrells Drug Company's fountain herewith shown will discover two glass signs advising readers that soda checks are given, and must be paid at the cigar counter—that deposits must be made on all glasses taken out, which, upon the return of the glass, will be promptly refunded. Mr. Walker has observed that paying checks at the cigar counter or candy case will double the sales in this department, and the requiring of a deposit on glasses taken out has obvious merits.

A customer once volunteered the remark in the Sorrells store that somehow he had always walked many blocks out of his way to drink there and had just found out that it was because the glasses on the counter there were always dry and polished. It had never occurred to him that a part of the good taste of soda water was in the appearance of the surroundings and the knowledge that cleanliness prevailed.

A Dozen Eggs.

Eggs—fresh eggs—that is to say, strictly fresh eggs—are useful things about a fountain. Some of their uses are indicated in the following formulas which have been gathered from various sources:

Peach Flip.

Peach syrup, 2 ounces; egg, 1. Shake, fill glass, and serve a slice of fresh peach.

Cream Flip.

Vanilla syrup, 1 ounce; fresh cream, 1 ounce; egg, 1; essence of cinnamon, a drop. Shake, fill glass, and add a little grated cinnamon or nutmeg.

Lime Flip.

Lemon syrup, 1½ ounces; lime juice, ½ ounce; egg, 1; cracked ice, enough. Shake and fill the glass with carbonated water. If juice from the fresh lime fruit is used, serve with a bit of lime peel; if the bottled juice is used, a slice of lemon makes a suitable trim.

Prairie Oyster.

Carbonated water, 2 ounces; egg, 1; juice of ½ lemon; pepper and salt, enough. Shake well and serve with a mineral glass of carbonated water on the side.

Egyptian Flip.

Ginger syrup, 1½ ounces; solution of acid phosphates, a few dashes; egg, 1; cracked ice, enough. Shake well, fill the glass with carbonated water, and serve with a cube of pineapple.

Egg Straight.

Prepare a glass of sarsaparilla soda without foam, and into this open an egg without breaking the yolk.

Admiral Frappe.

Tincture of ginger, 2 drams; cream, 4 ounces; eggs, 2; strawberry syrup, 12 ounces. Mix well and trim with whole strawberries.

Dewey Flip.

Lemon syrup, 2 ounces; essence of peppermint, a dash; egg, 1. Mix well, fill the glass with carbonated water, and serve with a bit of lemon peel and a sprig of fresh mint.

That Drink.

Raspberry syrup, 1 ounce; orange syrup, 1 ounce; plain cream, 1 ounce; egg, 1; ice, enough. Shake, fill the glass with carbonated water, and garnish with a slice of orange.

Grape and Egg.

Grape juice, 1 ounce; powdered sugar, a teaspoonful; egg, 1; cracked ice, a plenty. Shake well, fill the glass with milk, shake again, and serve with a little nutmeg grated on top.

Lemon Scotch.

Fresh juice from 1 lemon; powdered sugar, a tablespoonful; egg, 1; cracked ice, a plenty. Shake and strain. Fill glass with ginger-ale, and serve with a slice of lemon.

Serving Egg Drinks.

Some general directions for serving egg drinks come in appropriately just here, so a few paragraphs from the *Confectioners' Journal* follow:

The first requirement for an egg drink is a good, fresh egg broken in the glass before the customer. Anybody can break an egg, but to do it neatly and nicely is another thing. There is a knack about it which can be acquired with a little practice. Hold the glass in your left hand and the egg in your right hand and bring the edge of the

glass and the center of the egg-shell quickly and sharply together with one blow sufficiently to cut through (not just crack) the shell and the inner white skin. You can now bring the egg quickly over the glass, setting it on the counter, and drop out the egg. If you crack the egg on the glass when it sets on the counter some of the egg is liable to run on the outside. If the egg is gradually broken it will not separate so readily. After you catch the idea you can easily drop the egg into the glass from one hand. It is all done so quickly and so easily that any one watching you will wonder how you can do it.

Now the egg should be thoroughly broken apart or beaten. This can be done by dropping in a few pieces of fine ice; then draw on the syrup and shake it up. Set the glass on the counter and place an ordinary lemonade shaker over it, pressing it down a little to one side firmly. Now lift the glass with the left hand, hold the shaker with the right, and invert them so that the shaker will now remain at the bottom. Hold the glass firmly into the shaker with your thumb pressing onto the bottom; and hold the shaker with your right thumb and first two fingers grasping around it and the two other fingers pressing on the bottom. Now shake the egg up and down vigorously with a movement of the arms from the elbow, holding the shaker and glass in front of you. The egg will be thoroughly broken in five seconds. Set the shaker on the counter and remove the glass. Draw the soda into the shaker, using both the fine and coarse streams. Pour the drink back and forth two or three times, drawing it out into a stream, and finish by straining the drink into the glass, using a wire strainer. The above method can be easily and quickly learned.

Egg drinks should be advertised with window stickers and signs, the same as ice-cream soda or other drinks, and you can work up a profitable trade on them in a short time. It is a good plan to keep a supply of fresh eggs in a glass bowl on the counter, or where they can be seen by patrons. Some prefer to take their drink through straws, and these should be kept handy for use when asked for. A small shaker containing ground nutmeg should be kept to sprinkle the tops of the drinks. The drink should be thoroughly cold.

Soda Fountain Perils.*

By DR. HARVEY W. WILEY.

Soda itself is all right, but dangerous ingredients are likely to be hidden in the foam-covered glasses.

The honest soda-water man who sells real soda water is a godsend. I would not part with him for the world. It's the man who sells injurious chemicals and habit-producing drugs in soda-water glasses to whom I am opposed, and whom I would like to see driven out of business.

To be pure and healthy, soda water should contain three ingredients—pure fruit flavors, pure carbonated water, and sugar, not saccharin or some other injurious sweetening.

To sell flavors that are made of chemicals instead of fruits is criminal.

To begin with, what is soda water? That is one question I would like to have congress and the various State legislatures define positively. Until there is some authoritative action taken on the question, there is little reason to believe that we will ever get pure, clean soda water in the ordinary drug store.

There is no law which compels the druggist to put specified ingredients into his concoction. He may put virtually anything under the sun except the poisons which are prohibited by law into a glass and squirt a little foam on top, and, if the mixture is satisfying to the palate, or the credulous, he will make money. Some day, I hope, congress will tell us what soda water is, and what it is not.

First of all, soda water does not, and is not supposed to, contain any soda. The name is a misnomer. A great deal of the stuff that is sold under the name of soda water contains saccharin instead of sugar. That should be prohibited by law. Saccharin is injurious to every one, and affects children seriously.

I could not venture an opinion on the yearly number of little children whose lives are ruined by the use of caffeine and other "dopes" which are hidden in soda-water glasses.

The dispenser who can not or does not keep his white coat clean for a day, should change twice a day.

* From an interview with Dr. Wiley in the Evening Post.

"Cures."

"What is a cure?" asks M. M. Osborne, of Elkins Park, Pa., in the August issue of his store paper. Then he goes on to answer his own query as follows:

One answer might be—and it now practically has government sanction—that anything anyone chooses to put out as a "cure" for anything, "goes" legally! The supreme court of the United States has rendered, in a "cancer-cure" case, the decision that the pure food and drugs law does not apply to mis-statements of the label as to curative properties, but only as to contents!

The foul birds of prey in human form may now laugh at their opponents and foist any fraudulent stuff they please on that considerable portion of the public that likes to be fooled. It is strange how many who are pronounced incurable by experts, will flock to these wretches, who do not know cancer from a cold in the head, and take their "cures" by the pint. But they will not laugh long, for President Taft has sent an emergency message to congress calling on it to remove "an evil which menaces the general health of the people and strikes at the life of the nation." A New York publication says "the people are becoming more enlightened and are no longer to be deceived by the cruel lies in 'patent' medicine almanacs."

There are no real "cures." Even the comparatively few medicines that scientific men look on as almost "specifics" in certain cases are only "helps to nature." We favor common sense, the giving of remedies, when diagnosis indicates them, to aid nature. No "fake" has or ever did have our support. Ours is a pharmacy, not a mere drug store.

Striving to Please.

On the wrapping paper of a store in a small Southern city the following is printed:

WE WERE PLEASED

to be favored with your patronage to-day, and we trust that everything you bought of us will prove satisfactory in every respect. If for any reason you are not satisfied with your purchase, we ask that you report the matter to us at once, that it may be adjusted to your entire satisfaction.

We want your trade, and shall try to serve you well.

CALL AGAIN.

There seems to be no copyright on the legend, and it might not be a bad idea for others to use it.

To hold the old customers, get out after the new.—Elbert Hubbard.

The Druggists Circular

Entered at the New York Post Office as second-class matter.

ESTABLISHED 1857.

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THE DRUGGISTS CIRCULAR.
William O. Allison, President and Treasurer.
D. G. Bogert, Secretary.

Address all communications to The Druggists Circular.

Subscription Rates.

For the United States and Mexico, TWO DOLLARS PER YEAR; if paid in advance, ONE DOLLAR AND FIFTY CENTS. Foreign and Canadian subscriptions, \$2 a year, payable in advance. Remittances should be made by Check, Express Order on New York, Post Office Order or Draft on New York, payable to The Druggists Circular.

Net Advertising Rates.

	3 months.	6 months.	12 months.
One Page.....	\$248	\$438	\$750
One-Half Page.....	142	238	438
One-Third Page.....	115	166	300
One-Quarter Page.....	86	125	225
One-Sixth Page.....	60	100	166
One-Eighth Page.....	45	70	125
One-Twelfth Page.....	34	56	100
One-Sixteenth Page.....	25	43	75
One-Twenty-fourth Page.....	19	33	56
Card 2 1/2 x 4 inches.....	11	19	33

Special prices are charged for preferred positions.

Changes for standing advertisements should reach us before the TWELFTH of the month, as we commence printing on that date. New advertisements sent in before the 23rd of any month can be inserted in the following issue.

Classified Opportunities.

Advertisements are inserted under this heading without display except as to a portion of the first line; the charge is at the rate of 25 cents for six words, each figure, abbreviation or initial being considered one word. Terms: invariably cash with order.

NO ORDER GIVEN TO ANY REPRESENTATIVE OF THIS PAPER BECOMES BINDING UNTIL APPROVED BY ITS MANAGER.

QUESTIONABLE OR UNDESIRABLE ADVERTISEMENTS WILL NOT BE ACCEPTED.

THE DRUGGISTS CIRCULAR

A Practical Journal of Pharmacy and General Business Organ for Druggists

VOL. LV. NUMBER 10.

NEW YORK, OCTOBER, 1911.

WHOLE NUMBER 658.

The 1911 Meeting of the N. A. R. D.

To the student of Homer it is quite patent that the Hellenic warriors owed their success not the least to the high regard each had for himself, to their magnificent conceit. So it is to-day: the men that succeed are those who believe that success is theirs to command. And, looking back upon the recent meeting of the National Association of Retail Druggists, one is struck with the lack of manifestation of this belief on the part of the officers and delegates assembled at Niagara Falls with respect to certain important measures which came before them for consideration. Truly was it said by two speakers on the floor of the convention, one a manufacturer, the other a retail druggist, that if the association got behind a practicable stable plan of price-protection and let its will be known in no uncertain terms, the end of price-cutting was in sight. These two men showed belief in the power of the organization, a well founded belief, and one that it is to be hoped will guide the officers of the association during the coming year, not only in an endeavor to secure a living profit on a line of goods that for the present druggists seemingly must handle, willy-nilly, but in spreading the propaganda of non-secrecy in medicine, and in procuring legislation desired by all drugdom.

It must not be inferred, however, that a disposition to procrastinate or to adopt a middle-ground policy marked the entire proceedings. There was a commendable inclination to meet the medical profession half way and with clean hands in a united effort to uplift the bipartite vocation of healing. In continuing its propagandic work and in the stand taken in regard to the refilling of prescriptions the association has indicated a willingness to do a just part by the physician, the pharmacist, and the patient. It is to be regretted that there was not a greater interest in the meeting of the propaganda committee. However, it may be that the present plan of carrying on the work is so satisfactory and so thoroughly understood as to render discussion unnecessary.

Due recognition was given to the fact that the national association can be of tangible assistance to its members and the retail drug trade at large, in the resolution instructing the executive committee to investigate co-operative business ventures, and in the plan to have the national headquarters act as a clearing house for full-price coupons. That the direct usefulness of the organization is becoming better known was shown in the report of the legal depart-

ment relative to the calls for assistance sent in from State and local associations and individual druggists during the year. When it becomes better known to the retail druggists of the country that the national association can be of assistance to each and every one of them, and the national association recognizes how much assistance it really can extend, there will dawn a better era for both parties.

Perhaps it was because no immediate need for convincing action offered, that the convention contented itself with suggestions rather than demands in some other things. In the matter of price-protection—which by-the-bye got almost the lion's share of attention—action as immediate as possible was insisted upon by the delegates despite the inclination of the committee on resolutions to procrastinate. A little more of the do-it-and-do-it-now serum might well have been injected into the tenor of the resolutions, with a healthy result to the future of the organization. For instance:

A matter of the utmost importance to every dispenser of prescribed medicines, the reform of our patent laws, got but scanty recognition in the report of the committee on national legislation, was not discussed on the floor of the convention, and was disposed of by the committee on resolutions in the vague phraseology of the 1910 convention: "Resolved that the patent laws be amended," etc. "Resolved"; by what authority? "Amended"; by whom? How much more convincing it would have been had the committee on legislation been instructed to draft a satisfactory amendment to the law, and to call upon every retail druggist in these United States to make a demand on his senators and representative in congress for reciprocity in letters patent, to demand that congress strike off that made-in-Germany yoke, that involuntary promise to "wholly abstain from questioning or contesting the validity of" patents on medicinal substances.

And again: in the matter of saloons disguised as drug stores in "prohibition" territory—there is an evil that cannot be winked at, an evil not a part of pharmacy but bringing upon the calling the deepest reproach. Surely a resolution purposed to clean the skirts of the legitimate drug business deserved better than tabling.

Starting off with a seasoned executive board, and well charted with suggestions and recommendations, the association should make the ensuing year one of record-breaking accomplishments. The power is

there; the men are there; let it be hoped that the will is there also. All within the ranks is harmony, if one may judge by the Niagara Falls meeting; the drug world awaits with interest and hope what the year will bring forth.

Dr. Wiley Vindicated by the President.

Those who have read the papers much of late must have noticed accounts of private investigations of United States Judge Grosscup's history, including the manner in which he has acquired such property as he owns. It seems that it is quite the style nowadays for large "interests" which may be affected by the actions or decisions of an individual, to put private detectives, secret service men, lawyers and others on the track of that individual for the purpose of finding something in his record that may be used to discredit him. These investigations, of course, take time.

After a delay of many weeks President Taft, just before starting on a speech-making tour of the country about the middle of last month, gave his decision in the Wiley-Rusby case, which was in the form of a letter to Secretary Wilson. In doing this he stated that he had reached this decision several weeks previously, but had delayed making it public on account of the investigation into the same matter by a congressional committee that had been under way.

It will be remembered that charges were brought by the committee on personnel of the department of agriculture against Dr. H. W. Wiley, chief of the bureau of chemistry; Dr. W. D. Bigelow, assistant chief; Dr. L. F. Kebler, chief of the drug laboratory; and Dr. H. H. Rusby, pharmacognosist, based upon alleged irregularities in the appointment of Dr. Rusby to his position in the government service; and that an additional charge was brought against Dr. Rusby for alleged irregularity in his recommendation for appointment of Dr. William Mansfield as an unskilled laborer in the service of the bureau. The nub of these charges as expressed by President Taft himself, was that Dr. Wiley, Dr. Bigelow, Dr. Kebler, and Dr. Rusby in effect conspired to put on the record a contract for a general employment of Dr. Rusby's services for one thousand six hundred dollars a year, but actually and secretly made a contract with him, by which he was to do only enough work during the year for the one thousand six hundred dollars to secure to him a compensation of twenty dollars a day, and that this was done in deliberate and defiant violation of the law as interpreted by the attorney-general in an opinion in which he held that congress had limited the compensation of experts to nine dollars a day. The committee making these charges recommended that Drs. Wiley and Bigelow "be given an opportunity to resign," that Dr. Kebler be reduced to a position in which he would have no authority to make recommendations regarding the salaries or periods of service of other employees of the bureau, and that Dr. Rusby be dismissed from the service. The recommendations went first to the executive head of the de-

partment of agriculture, Secretary Wilson, who passed them along to President Taft, who, in turn, referred them to his legal adviser, Attorney-General Wickersham for his opinion as a lawyer. In giving this opinion, in which he recommended that the president approve the recommendations of the committee on personnel, the attorney-general went so far as to say that "such an agreement [as was set forth in the committee's report] certainly merits condign punishment." President Taft next sent the papers in the case to Secretary Wilson, directing him to submit a report on the situation. The secretary did this, as long ago as July, recommending that Dr. Wiley be admonished but not dismissed. From that time until his decision, made public September fifteenth, the matter rested in President's Taft's hands.

Much to the satisfaction of those who believe that the food and drugs act is a good thing for the public and that it should be honestly enforced, the president not only exonerated Dr. Wiley from all charges, but said that "one can not withhold one's sympathy with an earnest effort by Dr. Wiley to pay proper compensation and secure expert assistance in the enforcement of so important a statute, certainly in the beginning when the questions arising under it are of capital importance to the public." The president found that there was no evidence that Dr. Wiley was a party to the correspondence on which the charges were based, and that he was justified by precedents in the department for doing what he did.

President Taft's acquittal of Dr. Rusby, in so far as his own employment as pharmacognosist is concerned, was as thorough as was that of Dr. Wiley. "So far as Dr. Rusby is concerned with respect to this particular contract," said he, "I do not find him at fault." Then he added: "For purposes of punishment or dismissal, I cannot charge him with knowledge of the legal difficulties involved in his employment." Regarding the Mansfield matter the president said:

There is another charge against Dr. Rusby for securing appointment, on the common laborers' roll, of a physician and expert whom he could use to do his work at a very small stipend when he himself was called away in other employment. I regret to say that the arrangement which Dr. Rusby thus made is not especially creditable to him, and shakes in some degree one's confidence in his avowed wish to make personal pecuniary sacrifice in the public interest for the enforcement of the pure food law. But Dr. Rusby's position as an expert of high skill and standing is such that I do not think that any more than this expression of opinion should be imposed as penalty. My information is that the government needs his services and that he has already rendered valuable aid. The error referred to, committed by him, should not call for further action or remark.

When the president so expressed himself he evidently was unaware of the fact that Dr. Rusby had been employing Dr. Mansfield to assist him in his work and paying him for such assistance out of his own pocket at a higher rate than he himself was receiving from the government for the same work. On occasions when Dr. Rusby was called away from New York, as, for instance, when the government

sent him to distant cities to appear as a witness in trials growing out of the food and drugs act, the work of passing shipments of drugs received at this port would have been so much delayed that the government stores would have been inadequate to hold the goods, and the importers would have sustained much inconvenience and loss of trade if there had been no drug expert to do some of his work. To prevent such delay, with its attendant train of evils, Dr. Rusby had employed Dr. Mansfield at his own expense to do some of the work, and as the salary which he (Dr. Rusby) was receiving was small, he asked the chief of the drug bureau at Washington if it would be proper to have Dr. Mansfield put on the payroll at a laborer's salary of fifty dollars a month. That wage would have been adequate pay for the amount of Dr. Mansfield's time that the work required, and it is hard to see how Dr. Rusby's attitude in the matter is "not especially creditable to him," unless the discredit is made to extend to the employment by the government of experts of the Rusby type for one thousand six hundred dollars a year, and of the Remsen type for two thousand. Dr. Mansfield's appointment was not secured.

Dr. Bigelow and Dr. Kebler, the president found, were over-zealous and disingenuous in the matter of securing Dr. Rusby's services, for which they should be reprimanded. This was the most severe thing he said about any of the men under charges.

In his letter our chief magistrate intimates that the decision in the case immediately under consideration was a small matter compared with other work which awaits him in the department of agriculture. That the entire department needs as herculean treatment as did the Augean stables, those who have followed the Wiley-Rusby matter with any degree of care are painfully aware. That the charges against Dr. Wiley and the others were what is commonly spoken of as a "cooked up" affair there is small room for doubt, and all signs point to one of his fellow officers in the department as the chef. That this affair was the culmination of a long continued and bitterly waged attack upon the forces in the department of agriculture which are exerted in the interests of the people and against the interests of those who exploit the people can hardly be seriously denied. That the decision to retain Dr. Wiley in office is a wise and correct one we believe all lovers of justice will admit, and that it is a severe blow to those who have been plotting for his downfall is apparent.

President Taft and the public are both to be congratulated upon the president's backing up of Dr. Wiley and his strong and much-needed support of the food and drugs act. Especially does the CIRCULAR feel gratified at that portion of the president's letter in which he clears Dr. Rusby of the charge of aiding in or conniving at an attempt to get an illegal salary for work done by him for the government. That Dr. Rusby is incapable of doing a low, mean, tricky or underhand thing those who know him best feel most assured, and for him to have gone down in defeat before an assault by the forces

of darkness would have meant discouragement for those who fight for the right because it is the right—despair, perhaps, for some of them who are disposed to be faint-hearted.

One Thousand Notices of Judgment.

Under date of August fifteenth the secretary of agriculture has issued notice of judgment number one thousand, given pursuant to section four of the food and drugs act. This means that since the act became effective a few months less than five years ago, one thousand alleged offenders against its provisions have been haled to court, the charges against them in all but a few cases having been sustained. When we take into consideration the fact that the law is but little more than an official mandate that the label on food and drug packages be made truthful, and that the almost one thousand convictions secured under it were in cases in which mendacity had been persisted in despite the law, we are led to wonder how much of untruth would have been proclaimed from such labels if there had been no wide-spread and well-directed effort to suppress it. We are also excusable for suspecting that much of this kind of untruthfulness (not to use the shorter and less euphonious word) is now going on around us simply because the officers have as yet not been able to take cognizance of it. And when we examine some of these judgments, consider the motives which lay behind the misdemeanors therein recorded, and reflect that the principal sufferers at the hands of the misdemeanants were the sick, the weak, the debilitated, helpless young babies and enfeebled old men and women, not only are we shocked at this evidence of the depravity to which seemingly intelligent citizens, who presumably claim to be more or less respectable, can descend, but we wonder how anyone who cares so much as a tinker's imprecation for the welfare of his fellow beings can argue against the desirability of the food and drugs act, or raise his hand in an effort to stop a movement to make it broader and more drastic.

Notice of judgment number one was issued May second, 1908, more than a year having elapsed after the coming into effect of the food and drugs law before the officials began to bring suit under it; and since August fifteenth, when the one-thousandth such notice was published, a number of others have been given out, so that to intimate that only one thousand judgments have been recorded under this law in four years and nine months is not to give the department of agriculture full credit for its activity. Leaving out of consideration such suits as were based upon the adulteration or misbranding of foods, we find among the others a great deal to interest and instruct us. The first of these is notice number ten, and deals with a sale of cocaine hydrochloride by a man doing business in the District of Columbia. A plea of guilty was entered and a fine of one thousand dollars was imposed. This case is mentioned in the CIRCULAR for July, 1908, page 335, and abstracts of such judgments as pertain more especially to drugs obtained under the law have been given in this journal from time to time.

as they have been issued. It is not our intention here to go into the details of these cases again, but merely to call attention to them in a general way in order that the value to druggists and the public of the act may be emphasized.

The first nostrum to be shown up in a notice of judgment was "sartoin skin food." It was proven by analysis that this "skin food," for external application, was simply epsom salt, dyed pink. Here again a plea of guilty was entered, the fine imposed being ten dollars. The next notice of judgment in a medicine case is number twenty-five and refers to the Harper's cuforhedake case. This was a cause celebre and was treated at length in certain issues of the CIRCULAR published in 1908. A strong defense before a jury was made by the defendant, but he lost and was fined seven hundred dollars. Notice of appeal was served, but the case was not taken to a higher court, the defendant paying the fine. A case which did go to a higher court, however, was one in which the labeling of a drug so as to indicate that it was a cure was under review. This was the Johnson "cancer cure" case, fully treated in the CIRCULAR for last July, pages 339 and 373. In this case the supreme court of the United States decided that the food and drugs act does not authorize the government officials to prohibit the making on drug labels of therapeutic claims and predictions. It was largely the claim on the label that his preparation was a cure for headache and a brain food that caused the court to decide adversely to Mr. Harper.

Of the one thousand cases in which judgments have been rendered, less than twenty per cent. involved drugs, the rest having to do with foods; honey, olive oil, flavoring extracts, spices, and other so-called drugs which are used principally as foods, being considered as belonging in that class. Of the one-hundred and sixty-odd drug cases, all but an almost negligible number have gone against the defendants. Of these cases no less than a score grew out of the misbranding of alleged headache cures, the misbranding, as we recall the various cases, consisting in nearly every instance of erroneous statements concerning the presence of acetanilide, or the quantity present. Narcotic-laden baby soothers, too, have come in for a large share of attention.

The benefit to the legitimate drug business of ridding it of medicines which are fakes and frauds, is incalculable, and druggists, therefore, are more benefited, from a purely business standpoint, by the enforcement of the drugs portion of the law than any other class of people.

As to whether each and every court decision and departmental action under the statute has been just as we would have had it, and whether things might have been done under the act which have remained undone, are questions which we are not now discussing. But we should remember that the law is crude and roughly drawn, and that those who are working under it—judges, jurors, executive officials, witnesses, and others, including manufacturers and dealers—are treading on new and strange ground, and

being only human, are not free from error. When we recall all this, then we may say that if no mistakes had been made in connection with the law, a modern miracle would have been wrought. But the law will not remain always new and crude, and those charged with its enforcement—as well as those who are most directly interested in its provisions—will not continue to be somewhat in the dark as to what their duties, rights and privileges are under it, and so we may confidently look for still greater improvement in food and drug conditions all along the line.

Truly the work of the department of agriculture, more especially that of its bureau of chemistry, is something for which the people of this country may well give thanks—thanks which should be no less sincere and fervid when it is remembered that a large and important part is accomplished without invoking the intervention of courts, and so is not chronicled in notices of judgment.

Paying Money to Unauthorized Persons.

From time to time we have felt called upon to warn our readers against paying money for us to strangers.

In this connection we wish again to say that all representatives of the CIRCULAR have letters of authorization from this office signed by the manager and bearing a date not over one month old, and no money should be paid for our account to anyone claiming to produce us who is unable to produce such a letter.

A subscriber paying money intended for us to an unauthorized collector does so at his own risk, as such collector acts as the subscriber's agent and not ours. Nevertheless we want to do all we can to protect our friends from loss, and so occasionally publish warning notes on this subject.

In this connection we desire to impress upon subscribers who request that we change their address on our mailing list, the necessity for sending the *old* as well as the *new* address.

THE WORD MIL, meaning milliliter or cubic centimeter, is objected to in some quarters because it may be confused with "mill," meaning one-tenth of a cent. If we discontinue the use of the word on that account, then to be consistent we should cease to use "gr." as an abbreviation for "grain," on the ground that it might be read "gross." Now, "gross" is a much used word, while "mil," meaning the tenth of a cent, is a word that is seldom employed, and then usually in connection with a tax levy, which has less to do with cubic centimeters than a grain has to do with a gross. And should a university graduate cease to use the letters A. B. after his name because in his undergraduate days they meant "at bat"? The objection is overruled.

FAILURES BEFORE THE PENNSYLVANIA BOARD OF Pharmacy amounted to over eighty-six per cent. at the August examination. Applicants for licensure as pharmacists—all, under the "prerequisite" law, being graduates of "recognized" colleges of pharmacy—numbered twenty-nine, only four of whom were successful. What is the matter with the boards—or the colleges—or the candidates? There is something wrong, somewhere.

The Drug Business in Hawaii.

BY GEORGE W. SMITH.

A description of the drug business in the Territory of Hawaii requires first, a brief description of the country and a little of its history, the more so owing to the fact that so many confuse us with the Philippines, and, in efforts for business, furnish us with letters and price lists in the Spanish language.

WHERE HAWAII IS.

The Hawaiian Islands (formerly called the Sandwich Islands) lie in the Pacific Ocean, 2,100 miles southwest of San Francisco.

The capital city, Honolulu, is an important shipping center and stopping place for trans-Pacific steamers en route from the Pacific Coast to China, Japan, the Philippines, Australia and New Zealand.

THE DISCOVERY OF THE ISLANDS.

The Hawaiian Islands were discovered by the Spaniards near the end of the sixteenth century and were again discovered by Captain Cook in 1777,* who named them the Sandwich Islands in honor of his patron, the Earl of Sandwich, at that time the first lord of the British admiralty. At the time of Cook's visit he estimated the total native population at about 400,000. The islands were visited several times by Vancouver on his voyages to the northwest coast of North America.

In the earlier years of the nineteenth century the islands became more generally known to the world through the American whaling ships hailing from New England ports and, through the information taken home by these mariners, the condition and needs of the islanders attracted the attention of the good people of Boston, who determined that an effort should be made to Christianize and civilize the inhabitants of this important group.

RACE OF PEOPLE.

In this connection it is well to state that the Hawaiian Islanders are a part of the great Polynesian stock, inhabiting many of the islands of the Pacific, notably Samoa, Tahiti, Tonga, New Zealand and others. They are an entirely different race from the natives of Fiji, the Solomon Islands and Australia. They were never cannibals. They had a primitive civilization of their own with laws and regulations, called tabu, but no written language.

EARLY AMERICAN SETTLERS.

In 1820 the first band of noble men and women came from Boston, around Cape Horn, as missionaries to the islands. They landed in Honolulu, at



GEORGE W. SMITH.
A leading druggist of the Territory of Hawaii.

that time a village of grass houses only, inhabited by native Hawaiians, a few respectable white people engaged in trade, and runaway sailors of all nations who found in the simple but hospitable islanders a ready prey to all the vices which accompany the civilization of the white man. There were no frame houses, the first one, still standing, having been built of lumber brought from Boston around Cape Horn.

At that time, what is now California, was just passing from the sovereignty of Spain to that of the empire of Mexico. The city of San Francisco, then known as Yerba Buena, consisted of a few adobe houses inhabited by Spaniards and part Spaniards.

The first missionaries devoted themselves to cultivating the friendship of the natives, reducing the spoken language to a written one and, as rapidly as possible, translating the Bible into the native tongue. Other bands of missionaries followed in 1823, 1830, 1832 and along up to 1840. The islands rapidly became more widely known and were the rendezvous of the American whaling fleet; to the number of from 150 to 200 vessels a year, up to the time of the practical destruction of the fleet by the Confederate cruiser Shenandoah during the American civil war.

The government of the country, in these early days, was a limited monarchy under a native king. The first constitution was adopted in 1839, before California belonged to the United States.

EDUCATION AND INDUSTRY.

The first school for white children (children of the missionary families), was established in 1842, and it is interesting to note here that a man later to become lieutenant-governor of California, Romualdo Pacheco, was sent here in his boyhood to attend school, there being at the time no schools on the California coast where he could be educated in English.

Up to the time of the civil war the principal business of the islands was the furnishing of supplies to the whaling fleet, and the shipping of corn, wheat, potatoes, and other vegetables to the California coast, but after the destruction of the whaling fleet it became necessary for the white people to turn their attention to other means of livelihood. Prior to 1860 sugar cane and cotton had been grown in small quantities. As the growing of sugar cane promised the greater profit more attention was given to this product, so that to-day Hawaii stands next to Cuba in the amount of raw sugar produced, and nowhere in the world is the growth of cane and the production of sugar conducted in as scientific and thorough a manner as in the Hawaiian Islands. As the native population did not afford sufficient labor for the plantations it became necessary to import labor.

POPULATION.

First Chinese, then Japanese, Portuguese, Porto Ricans, Russians and Spaniards were brought, until to-day the population stands approximately as follows:

Hawaiians and part Hawaiians, 38,584; Portuguese, 22,294; Spaniards, 1,962; Porto Ricans, 4,828; Caucasian (American, English, German and other Europeans), 14,684; Chinese, 21,698; Japanese, 79,663; all others, 8,196. Total, 191,909.

The government of the country continued as a limited monarchy up to 1893, when, owing to some unconstitutional methods of the then ruler, the white residents, assisted by a number of prominent Ha-

* The Century Dictionary states that "the islands were discovered by Gaetano in 1542, and rediscovered in 1778 by Cook (who gave them the name Owhyee)."—Editor THE DRUGGISTS CIRCULAR.



View of the Interior of the Store of Benson, Smith & Co., Honolulu.



Another View of the Interior of the Store Shown in the Picture Above.

waiians, overthrew the monarchy and applied to the United States to be annexed.

This application failed at the time and an independent republic was formed which existed until 1898, when, by act of congress, the islands were for-

Dr. Wood. The store was sold about 1852 to Dr. Lathrop and later to Dr. McKibbin, who conducted it until the later eighties.

In 1851 we find that drug stores were conducted by Alexander & Co., and by Dr. Hobart Welch, the lat-



Main Building, Drug Store of Benson, Smith & Co., Honolulu, T. H.

mally annexed and now constitute a regular Territory of the United States and not a mere "possession."

EARLY DRUGGISTS AND THEIR ADVERTISEMENTS.

The first reference to anything in the way of drugs or the drug business in Hawaii is found in the first English paper published in Honolulu, the *Sandwich Island Gazette*, under date of August 6th, 1836. It is as follows:

T. Kemble Thomas, Jr., M. D.

Attends to the duties of his profession at his office on the ground floor of the Pagoda.

Under date of August 7th, 1836, in the same paper we find the following:

Notice.

For sale on the ground floor of the Pagoda, Maws Apparatus, English Trusses, Fresh Ginger, Rochelle, Soda and Seidlitz Powders, Copperas, Salærat. Best Sponge, Chloride Soda, 100 lbs. Sulphur and a good assortment of Medicines.

In 1847 Dr. Watson advertises that a

General assortment of Drugs, Medicines, Perfumes, Fancy Soaps, etc., etc., is offered for sale next to store of C. Brewer Co.

In the *Polynesian* of February 16th, 1850, the following occurs:

Drugs and Medicines.

At the store opposite the Honolulu House the largest assortment ever offered in this market. [Followed by a long list of drugs, medicines, etc.]

This was probably the first legitimate drug store in Honolulu, and is supposed to have been conducted by

ter advertising that he drew his supplies from Davy, Machuerdo & Co., of London.

In 1853, Ruggles & Co., from Boston, conducted a store that was later sold to Dr. Hoffman, who retired in 1884.



The Oldest Drug Store in Hawaii.

The "Family Drug Store" of Hildebrand & Mott-Smith was conducted by this firm from 1853 to 1870, then sold to one Strehz, who failed in 1879. His stock and fixtures were purchased by Hollister & Co., at

that time engaged in the tobacco business. Eventually the name was changed to the Hollister Drug Company, now the oldest drug firm in the Territory.

A number of the early missionary physicians conducted "apothecary shops" in connection with their practices.

From the foregoing it will be seen that the first "American" drug store west of the Rocky Mountains was probably established in Honolulu. The stocks supplied at that time were all brought around Cape Horn from Boston or New York and from England.

THE DRUG BUSINESS AT PRESENT.

The business with which the writer has been connected since its inception, that of Benson, Smith & Co., Ltd., was started in 1883 in a very small way, wholly as a retail store. The business has now grown to very large proportions, doing both a retail and a wholesale trade.

At the present time there are five drug houses conducted by Americans in the Territory, four in the city of Honolulu and one in the only other city in the group, Hilo, on the large island of Hawaii.

The stores in Honolulu, in the order of their ages, are, those of the Hollister Drug Company, Ltd.; Benson, Smith & Co., Ltd.; Chambers Drug Company; Honolulu Drug Company. The one at Hilo is conducted by the Hilo Drug Company.

In addition to the foregoing Honolulu has twenty-two drug stores conducted entirely by Japanese, all qualified men, either graduates or licentiates in pharmacy, carrying the same line of goods that the American firms stock, and doing business in much the same manner. Twenty-odd other Japanese drug stores are on the other islands of the group, in the neighborhood of plantations.

A number of Chinese drug stores also exist, carrying, however, only the crude drugs handled in Chinese pharmacy.

The drug business in Hawaii is conducted on exactly the same lines as on the mainland of the United States, and a clerk coming from any part of the "States" would find himself handling and selling the same class of goods and under the same conditions as if he had only gone from, say, New York to Chicago. The language of the country is English but for the alien population, Chinese and Japanese, clerks of those nationalities are employed in all the stores.

DISPENSING BY PHYSICIANS.

One custom, however, obtains here that does not exist to any great extent [?] on the mainland: most of the physicians dispense their own medicines. This custom commenced in the early days and has not been changed, more because the patients are accustomed to it than because the physicians desire it.

Comparatively few prescriptions, therefore, are filled, the supplies of drugs and pharmaceutical preparations being furnished to the physicians by the drug houses.

The Territory of Hawaii has a pharmacy law similar to most of the older laws of the States. This requires that an applicant for a license must be a graduate or licentiate in pharmacy and must pass an examination before the board of pharmacy.

SHORT HOURS.

The hours of business are shorter than on the mainland. All of the drug houses close at 8:30 P. M., ex-

cept on Saturday nights. Sunday hours are from 8 to 10 A. M. and 5:30 to 7:30 P. M.

Clerks enjoy every other evening and every other Saturday afternoon off, in rotation, and every other Sunday all day.

SODA WATER, TOO.

While the weather is never as warm as in the eastern and middle parts of the United States, owing to

4561
150

Benson, Smith & Co

Please give bearer the following prescription

viz.

No. 2.

1. Citrate of Iron and Strypnine 1 Ounce.
2. Syrup of Orange peel 2 Ounces.
3. Soft water 1 pint

Pres.

Directions 1 teaspoonful 3 times a day

Kalakaua

April 14/85

Prescription Written by Kalakaua, When King of the Hawaiian Islands.

prevailing trade winds, it is quite warm enough to make the sale of the great American drink, soda water, a large one. All the drug stores, as well as some of the confectioneries, have large and well-appointed fountains, and all classes of the population partake of the many forms of drinks offered, ice cream sodas being the favorites.

The only drug exported from the islands is kava kava root, piper methysticum, but in gradually decreasing quantities, as the land is too valuable to be devoted to its cultivation.

The principal exports are sugar, coffee, tobacco, some cotton, pineapples and some sisal.

A KING'S PRESCRIPTION.

Under the monarchy, during the life of the last king, Kalakaua, the writer numbered him among his customers. The king was interested in medical matters and kept in his library a book similar to the old-fashioned "Household Physician." From this he frequently selected prescriptions for the treatment of Hawaiians in his retinue or those in his small army known as the "household guards."

The writer has dispensed many of these prescriptions, and one is reproduced herewith, showing the

bold signature of the king, who died in San Francisco in 1892.

Business as conducted in the islands requires a larger investment of capital than on the mainland; the distance from the base of supplies necessitates the anticipation of wants a long time ahead, and the credit system is general in all lines of trade.

The writer has been a reader of the CIRCULAR since 1873 and a subscriber since 1880, and would not be deprived of the monthly receipt of this journal if possible to avoid it.

For the information in reference to the older drug houses the writer is indebted to Thomas G. Thrum, editor and publisher of Thrum's Annual, a work of standard authority in the Territory.

Strychnine Arsenite and Morphine Sulphate.

BY H. ENGELHARDT AND H. W. JONES.

Strychnine Arsenite.—To strychnine arsenite the following formulæ are ascribed: Merck's Index, 1907, gives $(C_{21}H_{22}N_2O_2)_2 HAsO_2$, corresponding to 86.1 per cent. of strychnine, while other authorities (Hager, etc.) state that the composition of this salt is expressed by the formula $(C_{21}H_{22}N_2O_2)_2 As_2O_3$, corresponding to 77.1 per cent. of strychnine.

To ascertain to which formula the strychnine arsenite on the market corresponds, we secured samples of this alkaloidal salt from four of the leading manufacturers of alkaloids, and determined the percentage of strychnine in them in the usual way. The determination was somewhat difficult on account of the salt being rather difficultly soluble both in water and acidulated water.

The following percentages of strychnine were obtained:

A. 75.65; 74.9. B. 72.76; 71.5. C. 69.2; 71.0. D. 75.5; 75.3.

This shows that none of the salts corresponds to either of the above formulæ, but that all of them contain an excess of arsenous acid, which fact we have proven by actual determination of the latter.

All the salts were free from moisture, and did not contain water of crystallization.

Morphine Sulphate.—The United States Pharmacopœia requires that on adding 4 c.c. (mils) of potassium hydroxide test solution to 0.2 gramme of morphine, a clear solution, free from any undissolved residue should result, showing the absence of and difference from other alkaloids. This test is too lenient. The test applied by the Swiss, German, Belgian, Austrian, etc., Pharmacopœias for the detection of other alkaloids in morphine hydrochloride (which salt is exclusively official in almost all of the other pharmacopœias) is much stricter. These pharmacopœias direct that when 5 c.c. (mils) of an aqueous solution of the morphine salt, 1:30, be dissolved in caustic potash solution and the solution be shaken with an equal volume of ether, the latter, after separation, should be clear and on evaporation should not leave a weighable residue.

We have examined four samples of morphine sulphate U. S. P. procured from different manufacturers and have found that the samples contained 1.45 per cent., 3.34 per cent., 2.83 per cent. and 3.97 per

cent., respectively, of other alkaloids, which consisted for the greater part of codeine.

The determination was carried out by dissolving a weighed quantity of the morphine salt in water, rendering the solution alkaline with caustic potash and shaking the mixture with various portions of chloroform. The chloroform after being shaken for several times with small quantities of water, to remove traces of suspended alkali, was evaporated to dryness and the residue titrated in the regular way.

Foresight.

BY WILLIAM H. ROWE.

When a business man has no plans for the future that man has not much of a business future.

The man who does not know where he is going, but thinks he is on the way, will find it a long journey.

Foresight, if we would settle any question wisely, is just as important as hindsight or insight: Our plans for the future will modify or establish many of our present decisions.

Many men who by their practical wisdom have won the reputation of being "long headed" are only "long sighted." They saw the condition or opportunity approaching and prepared themselves for it. Theirs was the gift of foresight.



WILLIAM H. ROWE.

Author of the article here-with on "Foresight" as well as of similar articles, on "Hindsight" and "Insight" appearing in the issues of the Circular for August and September, respectively.

AIR CASTLES AND OTHER STRUCTURES.

The druggist may well leave the "dip into the future" for curiosity alone

to Ganderbone and all his numerous family of weather prophets, and air-castle building to the architects of flimsy day dreams, yet what his business will be five or ten years hence depends in a very large measure on what his hopes and plans are for it as he looks ahead. If he uses a wise foresight he may be able to establish as fact what now seems to him but wild dreams and build sure foundations for what at the present seem mere air castles. The building must be an ideal in the mind of the architect long before it is a fact in stone and steel, and exist in lines and figures on the blue print before it rises in substance upon its foundations.

I have often thought that it would not be time wasted if any druggist took a little while away from the active parts of his business and quietly thought out his problems and made his plans for the future. The politician does not plan his campaign on the stump, nor the lawyer his conduct of a case in the court room, nor, indeed, are big business deals put through in this way, and why should our smaller, but to us no less important, concerns be launched with no thought but that which we can have when harassed by a thousand and one interruptions? Marsden's often quoted advice to the young man entering business is to plan his work thoroughly, and then thoroughly work his plan. Some good ideas may have sprung full-panoplied from a great head, as did Minerva, but

the most and the best of them, like Topsy, "just grewed."

As we adjust our eyes for the long look ahead in order that they may not become dull and misty with castle building, let us pick up our pencil and jot things down as they come to us. It will serve as a sort of anchor to hold us to the realities, and our plans are twice as likely to be definite if we write them out as we go along. In fact, one of the best devices I know for developing foresight is to keep at hand a little book in which any plan may be put down in black and white and stored away to be found just the fit in the time of some future need.

WHEN WE ARE OLD, THEN WHAT?

Taking, if we wish, the longest possible range of foresight, our look—that is, the look of us younger men—should not take into consideration so much our present position as the place we wish to occupy thirty or forty years hence. This advice might seem more pat if given before a man has tied himself down to any established business, yet any man though he is already committed to a definite place would do well to look away to the time when he will be fifty or sixty years old, and judge all things in the light of what he wishes to be or to have at that age.

It seems a rule almost without any exceptions that until he is thirty a man should not let anything however much present good it may offer turn him away from what will give the best reward in the future. If he feels that he has the right power in him, a small business with a good chance for growth is much better than a larger one that has reached its fullest expansion. A young man rich only in prospects may often be laughed at by the unthinking, but many times the last and best laugh belongs to him.

As one takes the long look ahead, he should consider his own capabilities, and one can measure them pretty nearly by a look back over what he has accomplished during the past five years. Then he should think of just what his ambition is, not what his gilt-edged dream pictures, perhaps, nor what his doting mother laid out for him when he was a baby in arms, but what to him means happiness and peace of mind, and thus have it fixed as nearly as it can be by rule of thumb.

After a man has taken a sane inventory of himself, then let him take a like sane one of the conditions with which he is surrounded, judge the possible expansion of his business, the future of his town or city, and the class of trade to which he must cater. Comparing what he wants to do with what he will be able to do in his present position—what he can do with what he might do—will reveal something that perhaps will be an unwelcome revelation to him at the time, yet something which thirty years hence, if it is heeded, will make him glad that he stopped to take the glance ahead.

A SHORTER LOOK.

But with most of us, our use of foresight will not be in looking into the future years, but to looking ahead to the weeks or months just before us. "Campaign" may sound like a big word for a small retailer to apply to any plan he may have for his business, yet the campaign idea, setting up an object and working toward it over well defined lines, is a method much in use to-day. We have political campaigns, educational campaigns, and evangelistic campaigns, large business men have their advertising campaigns, and

even the women are having their suffrage campaigns. And no matter how small the business, the benefit to it would be surprising did we go about its improvement along methodical "campaign" lines.

AN ADVERTISING CAMPAIGN.

To take but one instance, the matter of advertising. The average business man, if he does any at all, is going at it haphazard. He makes up his copy to fit an idea that occurs to him on the moment, not along lines that he has had in mind for months, and which are a part of a well thought out plan. If he happens to have had a shipment of something new, that, no matter how much out of season it may be, will be featured. He manages his advertising much as a drunken teamster might manage his team if it were stuck in the mud. The horses are pulled first this way and then that, or unhitched and attached to different parts of the load with no long steady pull in one direction. The result to the load and the business is about the same.

Long before the first of January the business man should have planned his next year's campaign, and his program should be complete, if not for the whole year, at least, for some months ahead. If he reads the papers devoted to his business—and he is needlessly handicapping himself if he does not—he will find much in the experiences of others to help him in his. There was a very helpful paper on this subject read at the meeting of the American Pharmaceutical Association in 1909 by Mr. J. W. T. Knox which is brim full of solid advice and contains a specimen layout of a year's advertising that is a most suggestive model for any druggist in his planning.*

WINDOW DISPLAYS.

One of the religious papers a short time ago published a symposium in which many of the foremost preachers of the country told how they prepared their sermons. The plan of about two-thirds of them seemed to be to "grow" the sermons. They did not manufacture them by forced process the week they were to be delivered, but had been building them up for weeks and gradually adding to them so that all that they needed in order to fit them for preaching was to perfect them. Would this not be a good method for us druggists to use in preparing our windows?

I am afraid we often have the old display removed and the glass washed before we have fully decided what we are to put in. This perhaps accounts for the dread with which we look forward to the day when the change should be made. Maybe it explains, too, why we so often let displays remain until their day of usefulness is passed and the floor of the window has become a cemetery for flies. We do this latter, be it said with a groan, knowing full well that an old display materially injures any store and is a sad comment on the business character of the druggist who allows it to remain.

If we are conducting an advertising campaign, our windows, of course, should be used to further the campaign, and we should know some weeks ahead what we are to put in them on a certain date. In such a case we should have plenty of time to use our hindsight in looking back over our store of ideas and to work up such as seem appropriate to make them fit our case, or, we could look for new ones in other

* This paper is reprinted in THE DRUGGISTS CIRCULAR for October, 1909, page 536.—Editor THE DRUGGISTS CIRCULAR.

places. When we have found something that is of use to us, let us drop it into an envelope that bears the date on which we can use it. If we see a trim in another window that seems attractive, it would be well for us to write a description of it and put it in the envelope with the other material. The background can be arranged for motion apparatus manufactured, and show-cards written at leisure moments long before they are needed, so that but a few minutes will be needed on the appointed day to put them in place. The trouble will thus become a pleasure, the trim will be made on time, and no valuable hours' aid to the advertising will be lost.

With hindsight to glean and bind for our use the experiences of the past, with insight keenly looking into our actual standing at the present, and foresight peering sharply ahead so that the hand may be wisely guided, the druggist's field of vision is complete. Hindsight, insight, foresight, and greater than all these is their wise combination, common sense.

Cloudy Ammonia.

The following formula for a cloudy ammonia water suitable for bath or shampoo was contributed to the *Canadian Pharmaceutical Journal* by Henry Watters, of Ottawa:

Powdered borax.....	2 drams.
Water	6 ounces.
Ammonia water (30%).....	5 ounces.
Oleic acid.....	2 drams.
Cologne water.....	4 drams.

Dissolve the borax in the water; add the ammonia water, and then the oleic acid previously mixed with the cologne water.

Instead of the oleic acid, 4 drams of soft soap may be used.

The cologne water used by Mr. Watters has the following formula:

COLOGNE WATER.

Oil of bergamot.....	10 c.c. (mils).
Oil of orange, sweet.....	10 c.c. (mils).
Oil of neroli.....	2 c.c. (mils).
Oil of lemon.....	2 c.c. (mils).
Cologne spirit.....	1000 c.c. (mils).
Stronger orange flower water.	enough

The oils are dissolved in the spirit; and enough orange flower water is added to cause a slight opalescence. The liquid is allowed to age as much as possible before filtration.

Veterinary Embrocation.

Oil of origanum.....	1 ounce.
Liniment of soft soap.....	3 ounces.
Oil of turpentine.....	4 ounces.
Ammonia water.....	4 ounces.
Camphor	1 ounce.
Compound tincture of benzoin.....	1 ounce.

Wehner's Paste.

Zinc oxide.....	30 grammes.
Starch	30 grammes.
Glycerin	10 grammes.
Water	10 c.c. (mils).
Wool fat.....	10 grammes.
Cerate	10 grammes.

The Oxypathor Humbug.

"It is sometimes hard to decide which is the greater—the impudence of the quack or the credulity of his victims. The comparative ease with which the medical faker is able, by the most preposterous claims, to separate the trusting from their money indicates the enormous potentialities in advertising. It might be supposed that an individual who set out to sell, as a panacea for all ills of the flesh, a piece of brass pipe with one or two wires attached to it, would, commercially speaking, have a hard and rocky road before him. But such a supposition would be incorrect. Not only would the enterprising faker find customers for his gas-pipe, but there would be such a demand for this most inane of 'therapeutic' devices, that two or three imitators would immediately enter the market."

With these words begins a little brochure entitled "The Oxydonor and Similar Fakes," issued by the American Medical Association. The author of this interesting pamphlet begins with an exposure of the electropoise and the claims made for it addressed to the therapeutically silly, and pays his respects in turn to the oxydonor, the oxytonor and the oxygenor. He then has a few words to say about the oxygenator or oxypathor, one of the later of this sort of fakes. "More recently," he says, "still another modification of the gas-pipe cure has been foisted upon the public." This at first was called the oxygenator, but has been changed to oxypathor. To quote again: "The oxygenator (or oxypathor) in appearance resembles the oxygenor more than it does the oxydonor. It consists of a cylinder with two cords and discs; the latter to be attached respectively to the ankle and wrist of the user . . . the user of the oxygenator may take his choice of two explanations of how the instrument works; either it causes the body to attract the oxygen, or it pumps the oxygen into the body. As both statements are falsehoods, it makes little difference which one the gullible purchaser accepts."

The advertisements of this species of the gas-pipe genus of fakes state that the oxygenator is the supreme master of diphtheria. "No earthly power," they proclaim, "except the oxygenator can take the slowly choking child, and with speed, simplicity and safety bring it back to health." It seems almost as if a certain old-fashioned kind of sudden choking until the victim is entirely beyond all earthly power to bring him back to life is too good for a man who is heartless enough to put into the hands of the ignorant parents of a child dying of diphtheria, such a fake and tell them that it is better than the treatment which the child would receive at the hands of an intelligent physician.

The sale of the oxygenator in Vermont has been forbidden by the board of health of that State, tests having shown it to consist essentially of a tube filled with inert substances, apparently factory waste, consisting of coke dust.

An attempt on the part of the proprietors of this fraud to make, for a consideration, the advertising columns of THE DRUGGISTS CIRCULAR a party to their scheme to draw retail druggists into their disreputable business of cruelly deceiving the public, was unsuccessful. Of course no reputable druggist, with the facts in the case before him, would have anything to do with such a swindle.

Statistical Report of Prescriptions.*

Summary of 117,000 prescriptions, comprising 122 individual collections mostly of 1,000 each from consecutive druggists' prescription files during 1907 and 1908, representing fifty-seven cities in twenty-eight States.

The word "articles" used here means the active ingredient not including simple solvents like water, syrup, alcohol, etc.

For the purpose of comparison, the total articles 2,223 have been divided in six groups as follows:

1. The articles of the United States Pharmacopœia.
2. The articles of the National Formulary.
3. The articles of the New and Non-Official Remedies of the American Medical Association, chiefly synthetic chemicals, not including proprietary pharmaceuticals.
4. Proprietary pharmaceutical preparations and dietetic products.
5. Drugs of organic derivation, their preparations and principles.
6. Chemicals, inorganic, their preparations and products. The distinction in 5 and 6 is not especially defined.

Comparison of six groups in the (a) number of articles of each group, (b) number of times used, (c) the percentage ratio of the articles of each group, and (d) the percentage ratio of times used.

	Number of articles.	Percentage of articles.	Number of times used.	Number of articles.
1. United States Pharmacopœia.	970	43.0	162,770	83.0
2. National Formulary.....	319	14.5	10,765	5.5
3. New and Non-Official Remedies	160	7.5	11,783	6.0
4. Proprietary	475	22.0	7,640	4.2
5. Drugs and Preparations.....	210	9.0	1,259	0.8
6. Chemicals and Preparations..	89	4.0	941	0.5
Total	2223	100.0	195,158	100.0

THE FIFTEEN SUBSTANCES MOST FREQUENTLY PRESCRIBED IN ORDER OF TIMES USED.

	Times prescribed.	Total.	In each 1,000.	Pre-scribed once in times—
1 Nux Vomica.....	4764			
Strychnine ..	3125	7889	67	15
2. Opium	2922			
Morphine ...	1458			
Codeine	3100	7480	64	16
3. Digestive ferments.	3500			
Pepsin	3000	6500	56	18
4. Quinine and salts.	4400		40	25
5. Calomel	4130		36	28
6. Sodium bicarbonate	3400		30	33
7. Phenyl salicylate (salol)	3360		29	35
8. Phenacetin	2600		23	43
9. Bismuth subnitrate	2574		22	45
10. Cascara sagrada...	2600		22	45
11. Potassium iodide..	2300		19	52
12. Sodium salicylate.	2276		19	52
13. Caffeine	2049		17	60
14. Arsenic	1900		16	62
15. Acetanilide	1500		12.3	80

Alkaline Peppermint Lotion.

This formula is in use at a London Hospital:

Oil of peppermint..... 5 minims.
Water 20 ounces.
Borax 1 dram.

* From the report of the committee on pharmacopœial revision made by Dr. George C. Diekman at the 1911 meeting of the New York State Pharmaceutical Association, based upon data collected by the late Prof. C. S. N. Hallberg.

Aromatic Fluidextract of Cascara.

Cowley offers (*Chem. and Drug.*) the following process for preparing an aromatic liquid preparation of cascara sagrada, each cubic centimeter (mil) of which represents 1 gramme of the drug:

Cascara sagrada (in No. 20 powder) 1000.0 grammes.
Diluted sulphuric acid..... 50.0 c.c. (mils).
Alcohol (90%)..... 200.0 c.c. (mils).
Oil of coriander..... 2.1 c.c. (mils).
Oil of orange..... 2.1 c.c. (mils).
Spirit of chloroform..... 8.4 c.c. (mils).
Soluble saccharin..... 1.5 grammes.
Fluidextract of glycyrrhiza.. 200.0 c.c. (mils).
Ammonia water..... enough.
Distilled water..... enough.

Boil the powdered drug for two hours with 750 c.c. (mils) of distilled water containing the acid; allow the mixture to stand for twenty-four hours; then pack in a percolator and percolate with distilled water until the drug is exhausted. Neutralize the percolate with ammonia water, and evaporate on a water bath to 600 c.c. (mils), maintaining slight alkalinity throughout the operation by the further addition of ammonia water from time to time. Dissolve the oils and saccharin in the alcohol; add the spirit of chloroform and the fluidextract of glycyrrhiza. Mix this with the concentrated extract, and, if necessary, make up to 1000 c.c. (mils) with distilled water.

Photographic Duplex Bath for Black Tones.

The following combined toning and fixing bath will give black tones on printing-out paper prints made from strong negatives:

Sodium thiosulphate..... 12 ounces.
Potassium sulphocyanide..... 2 ounces.
Sodium acetate..... 3 ounces.
Potassium alum..... 300 grains.
Silver chloride..... 200 grains.
Gold chloride..... 30 grains.
Ammonium chloride..... 1 dram.
Distilled water..... 56 ounces.

Dissolve the first five ingredients in 40 ounces of water, in the order given, making sure that each is dissolved completely. Set aside in a stoppered amber-colored bottle for twenty-four hours, and filter. Dissolve the gold chloride and the ammonium chloride in 16 ounces of water, and mix the two solutions.

The printing should be carried a bit to excess, and the prints immersed in a 5 per cent. solution of sodium carbonate before being placed in the bath.

Califacient Liniment.

F. K. Heldmann, of Syracuse, proposed the following formula for a warming liniment at the recent meeting of the New York State Pharmaceutical Association:

Oleoresin of capsicum..... 0.25 gramme.
Methyl salicylate..... 20.00 grammes.
Liniment of soft soap..... 20.00 grammes.
Wool-fat..... enough to make 100.00 grammes.

"Physicians whom I have induced to use this," he says, "have found it to be a splendid remedy."

Abstracts

Fatal Laboratory Anthrax.

The great risk involved in handling disease germs is again brought to notice by a recent case of fatal anthrax in man, reported in the London correspondence of the *Journal of the American Medical Association*. A laboratory attendant in one of the hospitals after suffering from headache for a few days went to one of the physicians showing a small pimple on his neck. The pimple was apparently not thought seriously of by the physician at the time, but by the next morning it had become enlarged to the size of a shilling and seemed to show signs of anthrax; the bacilli were found on bacteriological examination. The whole of the lesion was immediately removed, the temperature fell, and in a day or two the patient seemed to be out of danger, but the temperature again rose and in spite of serum treatment he died on the tenth day. The source of infection must have been some tube which he had touched in cleaning up after the students, who were working on anthrax bacilli. Probably he then scratched his neck. Some student had probably allowed some of the organisms to get on the outside of the tube and failed to report it, so that the tube might at once have been put in the steam sterilizer.

The Value of Russo's Test.

Nelson (*Med. Rec.*) makes a comparison of the Widal reaction, the diazo reaction, and Russo's urinary test in the diagnosis of typhoid fever. The last-named test gave 86 $\frac{2}{3}$ per cent. of positives; the diazo reaction, 33 $\frac{1}{3}$ per cent.; and the Widal test, 40 per cent., in fifteen cases subsequently determined by agglutination or cultures. Russo's test is made as follows: To 4 or 5 c.c. (mils) of the patient's urine add 4 drops of a 0.1 per cent. aqueous solution of methylene blue; mix well and examine against the light; a mint or emerald-green coloration is positive, whereas any bluish tinge renders the test negative. Russo reported the reaction as being unaffected by boiling or by the ingestion of such drugs as calomel, quinine, salol or caffeine; and also pointed out that the gradual resumption of the bluish tinge, as the patient advanced in the disease, was a valuable and favorable prognostic sign.

Change of Structure of Aluminum.

Le Chatelier (*Compt. rend.* through *Journ. Franklin Inst.*) notes that some aluminum articles underwent spontaneous disintegration, and on examination showed that in each case a cellular structure had developed, and that the disintegration was evidently due to the opening of the joints between the cells. Laboratory experiments indicated that the presence of small quantities of calcium was probably the cause of the development of this cellular structure.

To Preserve Rubber Instruments.

Talj, after investigating a number of means suggested for preserving rubber instruments, reports (*Military Surg.*) that he obtained the best results by exposing the instruments to the vapor from ammonium carbonate.

Effect of Nitrates in Drinking-Water.

Young (*Journ. Am. Med. Asso.*) having occasionally received samples of well-water suspected of having peculiar properties found on testing them that they were in every case high in nitrites. At the present time nitrates in water, in the absence of nitrites and considerable amounts of free ammonia [?] are taken as indicating that the natural purifying agencies have done their work, and that all nitrogenous organic matter has been oxidized to a harmless condition and an unfavorable environment for pathogenic organisms has been set up. From the observations he reports, however, it would seem that this process of oxidation may be carried to the extent of producing disagreeable effects, to say the least. The diuretic action of potassium nitrate and sodium nitrate is well known, and some therapeutic writers have attributed a special diuretic action to the nitrate ion itself. Eight specimens, the history of whose action was obtained at first hand, showed an excess of nitrate that would cause a person drinking a gallon of water a day to take in four diuretic doses. The accounts appended show that in every case a marked diuretic effect was produced in persons on first using the water, and in two of the eight cases the marked kidney irritation set up did not disappear in the customary use of the water. The symptoms reported were markedly noticeable and sometimes decidedly disagreeable, and chronic kidney trouble existed in some of the persons reported. The author does not attempt to claim definitely that the amount of nitrates present is the absolute cause for the condition, but the evidence points strongly to that conclusion. He hopes that the facts presented will be brought to the attention of others who have the opportunity for physiologic experiments on water-drinking, and that this may lead the way to experiments that will show definitely whether or not nitrates in water can reach a proportion sufficiently great to be in themselves harmful.

Cause of Pellagra.

Mizell (*Journ. Rec. of Med.*) advances the theory that pellagra is caused by the eating of much adulterated olive oil or other fats. He defines pellagra as "a disease due to eating semi-drying oils in quantities that cannot be normally disposed of, in which case they are deposited as fat foreign to the human organism, and in their final disposition by oxidation there is developed a series of end products that act in a deleterious manner upon all the cells and intercellular tissues of the body." The main ones of this group are oil of maize, oil of sesame and oil of cotton seed. They contain glyceride of linolic acid or linolin, which is the drying constituent. When it is brought into contact with an oxidizing agent it takes on oxygen and forms a series of volatile acids and aldehydes of these oils. The linolic acid readily combines with alkalies, the salts of which readily oxidize. The linolin has a strong affinity for sulphur and forms a compound which does not oxidize. The oxidation products, says the author, are the cause of pellagra. By interference with the formation of these products the occurrence of the disease is prevented or stopped. While food containing linolin may be consumed with no harm resulting, the limit, however, depends upon the sulphur present with the foods and in the body. The physiological limit is reached when the sulphur

is exhausted. When the above condition occurs, linolin is deposited in all the regions common to fatty deposits. With the rapid destruction of fat, atrophy of the skin and tissues at the site of the erythema appears. When the erythema disappears and the patient has taken on weight, the skin and tissues return to normal. This, of course, occurs when the rapid oxidation of fat ceases. The cessation is accomplished by placing the patient in bed, avoiding the sun and semi-drying oils from the diet. As a result of the above theory, calcium sulphide is recommended as an agent capable of combatting the deleterious action and enabling the organism to rid itself of linolin. The author has used the calcium sulphide for the past year and a half with satisfactory results. Failures may be accounted for on the ground of a long standing gastro-intestinal lesion antedating the onset of pellagra.

Test for Albumose in Urine.

Fittipaldi (*Gaz. Osped.* through *Journ. Am. Med. Asso.*) says that several years of experience have confirmed the advantages of his technic for the detection of albumose in the urine. The presence of a considerable amount of albumin does not interfere with the findings. After precipitation with alcohol, the precipitate is dissolved in soda solution, 31 or 32 per cent. The solution is then tested with a 5 per cent. solution of nickel sulphate mixed with equal parts of ammonia. A few drops of this mixture are added to the alkaline solution, and the presence of products of proteolysis is shown by an orange-yellow tint. This test reveals the presence of albumosoids in a proportion of 4 to 10,000, or less. The author admits that it is less sensitive than some of the other methods, but holds that it is a reliable one.

Medical Education Statistics for 1911.

In the annual educational number of the *Journal of the American Medical Association* are given statistics of medical colleges, students, and graduates for the year ending June 30th, 1911. There were 19,786 students studying medicine last year, the lowest number since 1900, and 1,740 less than last year. These are divided into 18,414 in the regular colleges, 890 in the homeopathic colleges, 433 in the eclectic and 49 in the physiomedical colleges. There were 4,273 medical graduates last year, a lower number than was graduated in 1890. The regular colleges had 4,006; the homeopathic, 152; the eclectic, 110, and the physiomedical college, 5. The homeopathic colleges have the lowest number since 1880. There are 13 less colleges than in 1910, the total now being 120, consisting of 101 regular, 12 homeopathic and 7 eclectic colleges. The last of the physiomedical colleges became extinct a few weeks ago. Women students constituted 3.4 per cent. of all students, as compared with 4.2 per cent. last year. Statistics show that college terms are being gradually lengthened. In 1901, 58 colleges had an annual session of only twenty-three or twenty-six weeks each. Now all colleges have sessions of over twenty-seven weeks and over 80 per cent. have sessions of from thirty-one to thirty-six weeks. Tabulated statistics of college fees, including matriculation, tuition and laboratory fees, show that 35 colleges charge \$100 or less for each student per year, 70 colleges charge between \$100 and

\$175 per year and 151 charge \$75 or more. Some high-grade colleges charge very small fees; and some low-grade colleges high fees. There is no reason, therefore from the monetary standpoint why students of limited finances should attend low-grade colleges. Among the colleges charging low fees are several strong State university medical colleges. Of the 120 existing colleges, 43, or about 36 per cent., now require one or more years of work in a college of liberal arts for admission, and several others have voted to establish this requirement in 1912. Nine State examining boards have established the requirement for preliminary education of one or two years' work in a college of liberal arts, thereby supporting the better class of colleges which have adopted that standard. Figures show that approximately \$6,000,000 were given during the last twelve months for new buildings, endowments, teaching hospitals and medical research in connection with medical schools. This does not include the additional \$3,820,000 given by Mr. Rockefeller for medical research at the Rockefeller Institute.

A Dangerous Incompatibility.

A correspondent of the *Lancet* has called attention to the fact that an emulsion containing almond mixture, tincture of squill, ipecacuanha wine and sweet spirit of nitre, sometimes explodes. This, it is pointed out, is due to the presence of tannin in the gum used to make the almond mixture. Tannin decomposes the ethyl nitrite, causing evolution of oxides of nitrogen, and though this may take place slowly, when the bottle is corked the liberated gas accumulates and may burst the bottle. The reaction noted will of course take place when other tannin-containing drugs are present. It has long been known that it occurs in mixtures of spirit of nitre and fluidextract of buchu, or of uva ursi, both of which contain tannin.

Distinguishing a Fish Bone in the Throat.

Fackenheim (*Therap. Monatshefte* through *Journ. Am. Med. Asso.*) reports a case in which it was impossible to distinguish a fish bone which had lodged in the throat and was causing much disturbance. The author had the patient eat some stewed huckleberries, hoping thus to discolor the fish bone and render it visible. This measure was successful, a blue point then being seen projecting 1 millimeter from the red left tonsil. The author has applied this staining method in a number of cases since, and always with immediate success. It seems to us likely that some other dark-colored fruits, as blackberries, might be made to answer the same purpose.

Detection of Atropine in Mixtures.

Pohl (*Therap. Monat.* through *Pharm. Journ.*) remarks the impairing of the delicacy of Vitali's reaction for atropine by pilocarpine often present in eye drops containing also physostigmine. To overcome this difficulty the author recommends that the solution should be made alkaline and shaken out with carbon bisulphide. The atropine, being the only one of the three alkaloids soluble in the carbon bisulphide, can thus be separated from them, and Vitali's test applied to the residue after evaporation of the solvent.

Selecting Sugar to Make Colorless Syrup.

Lehr (*Bull. Pharm.*) notes that the pharmacist often meets with difficulty in selecting a sugar to produce colorless syrup. He says that a sugar in large clear crystals will make, in most cases, a clearer syrup than can be produced from the smaller grains. The directions given in the United States Pharmacopœia offer a chance of caramelizing the small particles of sugar which may come in contact with the dry and therefore overheated surface of the dish, and it needs only a little caramel to give a tint of yellow to the syrup. May not dissolving in boiling water, and a careful removing of the scum if such develops, do just as well? The test as to the color of the sugar is conducted as follows: Put, say, 25 grammes in a white porcelain evaporating dish, so that it appears as a flattened cone. Then allow from a pipette 5 c.c. (mils) of distilled water to run carefully and little by little around the base of the heap. While the water draws slowly up to the top of the pile, keep on emptying the pipette until the whole heap is soaked—always running the water around on the base. If the sugar is off color—either blue, yellow or gray—this will show in the place where the water comes ultimately together, leaving either a large dot or a ring of the peculiar color involved. A comparison of the color, which is clearly distinguishable against the white of the dish, may be made with a standard approved sample if necessary to settle any doubtful case.

Acetanilide Poisoning.

Gardinier in a paper on this subject presented at a meeting of the American Therapeutic Society concludes that the continuous ingestion of acetanilide or allied products creates a perfectly definite symptom-complex characterized by cyanosis, enlargement of the heart, spleen, and liver; a definite blood picture and characteristic urinary findings. The acetanilide habit or addiction, he says, is a well established one and its enslavement is comparable to that of opium or alcohol. Acetanilide is a most virulent hæmolytic poison, which produces definite changes in the blood.

Fourth of July Deaths and Injuries in 1911.

For the ninth consecutive year the *Journal of the American Medical Association* presents in its issue for August 25th statistics of deaths and injuries caused by the "celebration" of the Fourth of July. The number of deaths was 57; against 131 last year. Ten of these fatalities were brought about by tetanus following wounds chiefly from blank cartridges; 12 persons were burned to death, most of these being girls and small children. In some of these instances the fire was caused by small-sized firecrackers and the so-called "harmless" sparklers. There were 11 deaths from gunshot wounds, 9 by explosion of powder, torpedoes, dynamite, etc., 2 from giant firecrackers, 5 from cannon and 8 from various other forms of fireworks. There were also 1,546 non-fatal injuries, the total of killed and injured being 1,603, as compared with 2,923 last year and 5,307 in 1909. In nine years the total number killed was 1,719, including 978 deaths from tetanus, and 37,410 were injured. Of those injured 130 were completely blinded, 577 lost one eye each, 462 lost legs, arms or hands and 1,624 lost one or more fingers. In this city there were 3 deaths, the highest number reported

this year for any one city. Chicago had 2 and eleven other cities had one death each. This is a very marked improvement over previous years. In 1907 this city reported 22 deaths, Chicago 16, Pittsburgh 10, and 24 other cities reported from 1 to 5 deaths each. "These marked reductions," says the *Journal*, "are clearly due to public sentiment, which has been thoroughly aroused during the last few years, against the awful results of the old barbarous methods of celebration. The campaign for a more uplifting and profitable celebration of the Fourth of July has likewise been more pronounced; prohibitive or restrictive measures have been more widely and better enforced than ever before. There still remains, however, too much indifference on the part of city governments, on which the real responsibility for these deaths and injuries rests." The *Journal* is entitled to the highest credit for the very considerable labor it has performed in forcing attention to our Fourth of July barbarity; that labor has been a leading factor—very probably the leading factor in the movement for the suppression of that barbarity which is now happily in progress.

Estimation of Nitric and Nitrous Acid in Water.

Tillmanns and Suttstoff (*Zeit. anal. Chem.*) propose the use of diphenylamine sulphuric acid for estimating nitric and nitrous acid in water. 0.085 gramme of diphenylamine is mixed with 100 c.c. (mils) of 23 per cent. sulphuric acid and then with sufficient concentrated acid to obtain 500 c.c. (mils) of solution. 100 c.c. (mils) of the water under examination are mixed with 2 c.c. (mils) of a saturated sodium chloride solution and 1 c.c. (mil) of this mixture is then mixed with 4 c.c. (mils) of the reagent. After an hour if a blue color is produced in the mixture it is compared with those obtained by treating nitric acid solutions of known strength in the same manner. If 500 c.c. (mils) of the reagent are diluted with 200 c.c. (mils) of water, the solution thus obtained, no longer reacts with nitric acid, but can be used for estimating nitrous acid; the addition of sodium chloride is not necessary in this test. The blue color produced by the reagent with nitric acid has the highest intensity after allowing the mixture to stand for an hour, while in the case of nitrous acid only 10 to 20 minutes are necessary for producing the greatest intensity. By this reaction the presence of 0.1 milligramme of either nitric or nitrous acid, it is said, can be detected.

Ptomaines in Preserved Fish and Crabs.

Desgres and Caius (*Apoth. Zeit.*) have examined preserved tunny-fish, sardines, mackerel, herring, lobster and salmon for the presence of ptomaines, employing for isolating Stas-Otto's method and for identifying Bouchardat's reagent. All the samples examined contained ptomaines (which, however, were only slightly poisonous), the amount ranging from 0.2 to 0.6 gramme per kilo. The authors found that the percentage of ptomaines is higher when the whole fish is preserved (0.47 gramme) than when only the meat is pickled (0.3 gramme), also that the inner part of the can generally contains more ptomaines than the outer part, which is probably due to insufficient sterilization. The oil added in canning does not inhibit the formation of the ptomaines, but seems to favor it.

Separation of Barium, Strontium and Calcium.

The following process for separating barium, strontium and calcium, worked out by v. d. Bos (*Pharm. Weekbl.*), depends on the fact that barium salts are precipitated in weak acetic acid solution by ammonium chromate, and of the insolubility of strontium chromate in 50 per cent. alcohol. The estimation is carried out as follows: The diluted solution containing the salts of the three alkaline earths is heated to boiling, mixed with 10 to 15 drops of glacial acetic acid and then drop by drop with an excess of ammonium chromate. After allowing to cool, the liquid is filtered through a Gooch crucible, the precipitate washed well with warm water containing acetic acid and ammonium chromate, then transferred to the crucible, dried and weighed. The combined filtrate and wash water are evaporated, the residue made slightly alkaline with ammonia and after the addition of ammonium chromate evaporated again. The dry residue is treated with several portions of 50 per cent. alcohol, the insoluble strontium chromate collected in a Gooch crucible washed with 96 per cent. alcohol and dried at 90° C. to constant weight. In the filtrate the calcium is determined in the regular way by precipitating with ammonium oxalate. A process similar to this has been devised by the author for estimating the metals volumetrically.

Dangerous Antiseptic Tablets.

The *Journal of the American Medical Association* in discussing the advertising of medicinal tablets to the public says: "Our attention has been called recently to a particularly dangerous form of advertising. A firm has put on the market a bichloride of mercury tablet, each tablet containing 7½ grains of mercuric chloride and these are sold under the catchy name 'clover antiseptic tablets.' Not only are these tablets sold under an innocent-sounding title, but the public safety is still further disregarded by their being made in the shape of a clover leaf. The good fortune supposed to attend the clover leaf would not only prove attractive, but would also lessen the sense of danger, because of the supposed harmlessness of vegetable remedies. The abuse of the corrosive sublimate tablet has borne bitter fruit in accidental poisoning by the use of this substance under the titles of antiseptic tablets, wafers, etc. There is much to be regretted by both the physician and the pharmacist in the history of the employment of mercuric chloride."

Chemistry of Pinus Pumilio Oil.

In addition to l-bornylacetate previously found in the volatile oil of pinus pumilio, Boecker and Hahn (*Journ. prakt. Chem.*) have succeeded in isolating an aldehyde $C_{15}H_{26}O$, a ketone $C_{15}H_{24}O$, and a substance with the empirical formula $C_8H_{14}O$. The latter which seems to impart to the oil the characteristic odor, is a very volatile oil, has the specific gravity 0.931 and boils at 216 to 217° C. It seems to be a ketone and has been named "pumilon" by the authors.

Heroine Addiction.

Brooks and Mixell report (*N. Y. State Journ. Med.*) two cases of heroine addiction observed in hospital practice, both patients being admitted about the same time. They have since learned that the heroine habit is by no means infrequent in this city.

Foglie uso Sennæ and Foglie uso Belladonnæ.

Under these names an Italian firm has shipped to Austria, leaves which in broken condition were sent as a substitute for senna leaves, while the whole leaves were sent as belladonna leaves. Mitlacher (*Zeit. allg. oester. Apoth. Ver.*) found that the drug consisted of the leaves of "Chinese sumach," *Ailanthus glandulosa*. While the leaves of this plant when in a dry state could be mistaken for belladonna leaves, the difference between the two is evident at once when they are moistened and spread out; the leaves of *Ailanthus* are oval and dentated at the base; quite frequently in the shipment leaves were found which were united on the same petiole, thus differing widely from belladonna leaves. Microscopically the leaves of *Ailanthus* can easily be detected by the unicellular hairs, the absence of stomata on the epidermis of the upper surface and the presence of numerous groups of crystals in the mesophyll. The author also calls attention to the fact that belladonna leaves are frequently adulterated with the leaves of *Phytolacca decandra* and *Phytolacca violacea*.

Some Italian Peppermint Oils.

Bourdet (*Bull. sci. pharmacol* through *Pharm. Journ.*) reports that an examination of some peppermint oils of the years 1910 and 1911 from Pancalieri (so-called Italo-Mitcham oils) gave results somewhat different from those previously recorded by Schimmel and others. Their solubility in 70 per cent. alcohol was greater, 2.8 to 2.9 volumes sufficing to dissolve one volume of the oil; the rotatory power was also greater than the previously published figures, ranging from $-22^{\circ} 56'$ to $-26^{\circ} 38'$, other observers having recorded figures from $-2^{\circ} 34'$ to $21^{\circ} 12'$. The specific gravity was from 0.904 to 0.915; some of them showed abundant crystallization of menthol when cooled in a freezing mixture.

Sanitary Association in Manchuria.

The *Oriental Physician and Druggist* quotes the following interesting news: During the prevalence of the pest epidemics in Manchuria a number of associations came into existence in various villages to enforce various preventive measures. These associations proved so beneficial to the rural communities during the epidemic that they have now decided to amalgamate themselves into a communal corporation. Altogether they number over 180, extending from the Sungari on the east to Chenchialing on the west. The membership registered is over thirty thousand, and they have gradually gained great influence in the province.

Alteration in Solubility of Extracts on Keeping.

Jacobsen (*Arch. f. Pharm. og Chem.* through *Pharm. Journ.*) reports that extracts of rhubarb, colocynth, and nuxvomica showed no change in their solubilities in alcohol or water after being kept for six to eight months; extract of gentian became less soluble in strong alcohol, but showed no change in its solubility in dilute alcohol. Extracts of henbane and belladonna showed such differences that no general statement could be made in regard to them. The solubility of extract of rhubarb did not depend on the temperature at which it was kept.

The Modern Materia Medica.

Antitherpin is said to contain peru balsam, tar and rape seed oil.

Antodyne is the glycerin ester of phenol.

Bilatin, a nutritive preparation, is said to consist of desiccated milk, freed from fat by "a special process," with 5 per cent. of ovo-lecithin.

Curbitin is powdered pumpkin seed.

Dragées Ferrugineuses du Dr. Rabuteau, recommended for anemia, contain chiefly ferrous chloride in addition to calcium phosphate, starch, tragacanth and milk sugar.

Ekzemin is a yeast preparation, marketed in the form of tablets.

Eleptin is said to be composed of sodium bromide, potassium bromide, zinc oxide, piperazin, phenacetin, sulphonal, physiological salt, borax and sodium glycerophosphate.

Eurhostin, exploited as a stomachic and roborant, is designated as "condurango-pepsin-peptone."

Euskol is the name for "bricks" which contain eucalyptus leaves and pine needles, and other constituents. Ignited they give off fumes, which are said to be beneficial in cases of asthma, rhinitis, catarrh, etc.

Fermentin is a yeast preparation in powder form.

Fersinal is an iron preparation said to be free from alcohol.

Forbil, a laxative, contains phenolphthalein.

Formosan, for the treatment of obesity, is said to contain chiefly extract of bladder wrack.

Friesen Bonbons, recommended for cough and hoarseness, are said to contain the active principle of galeopsis ochroleuca.

Fruchtan Brod (bread), which is recommended as a laxative, is to be prepared from nuts and fruits.

Furunkulin Soap is a yeast preparation.

Gaba, which is identical with *Wybert's Tablets*, contains extract of licorice, acacia and oil of peppermint.

Gadiol is the trade name of a cod liver oil preparation.

Gaiacine is a French name for purified resin of guaiac.

Gastrogen is said to contain sodium bicarbonate, bismuth subnitrate, calcined magnesia, pepsin, milk sugar, and oil of peppermint.

Gehoeroel Schmidt contains almond oil, chamomile oil, cajeput oil and camphorated oil.

Guajadol is para-iodoguaiacol. It is used hypodermically.

Guakalin-Neu is a saccharated solution of potassium sulphoguaiacolate.

Guyot's Teerliqueur contains vegetable tar made soluble by the addition of alkalies.

Haimagen contains iron, lecithin, albumin and physiological salts.

Heliosan is a name for the oil of sunflower.

Herban Helios, exploited as a remedy for diabetes, is said to consist of boldo leaves.

Hermæon tablets contain cocoa and "nutritive salts."

Herzen's Pepsinogen contains meat extract and carbohydrates.

Heufieber-Renitol is a solution of a local anesthetic in suprarenal extract.

Histopin is a staphylococcus extract.

Hungarian Pussta Tea, exploited for the treatment of constipation, is said to contain senna, hoarhound, red poppy, white and red clover, coltsfoot, peppermint, horse-tail rush, melilot, yarrow and hysop.

Hygiea Jarchow, for the treatment of leucorrhœa, is a solution of zinc sulphate in thymolized water.

Hydropyrin Grifa consists, according to an analysis made by Neuberg, of lithium salicylate and lithium acetyl salicylate.

Ichthojod is a compound liniment of iodized ichthyol.

Iecol is an emulsion of cod liver oil.

Ier-Preparations are said to contain the active principle of Paraguay tea.

Influenza Pulver (powder) **Erb** is ammonium salicylate.

Intraits Perrot is the name of powdered drugs in which the oxydases, ferments, etc., have been killed by heating with alcohol under slight pressure previous to drying.

Iodanthrak is described as an "adsorption product of iodine and animal charcoal." It occurs as a black, tasteless and odorless powder.

Iunogen for nervous diseases, loss of appetite, etc., contains carbohydrates, lecithin, lactose, nucleovitamin and salts.

Jahn's Rheumatismustee (tea for rheumatism), is said to contain pansy, yarrow, queen of the meadow, couch grass, licorice, and senna.

Katal Sauerstoff Inhalation is said to consist of sodium perborate, manganous sulphate, menthol, and oil of pinus pumilionis.

Konoor, a hair dye, contains the dangerous aureol, a mixture of methyl p-aminophenol, mono amino diphenylamine, aminophenol hydrochloride and sodium sulphite.

Lane's Catarrh Cure is a solution of phenol and sodium chloride in water.

Lecimorol seems to be a mixture of cod liver oil and lecithin.

Leukrol, for the treatment of chlorosis, anemia, leucorrhœa, etc., is a fluid extract of aristolochia jubaharis.

Lipojodin is diiodo-brassicidic acid ethylester.

Liqua is a preparation containing aluminum hydroxide and hydrogen dioxide. It is claimed to be superior to aluminum acetate.

Lithiopiperazin is a compound of lithium and piperazin.

Lonii, for the treatment of erythema nodosum, is

a suspension of zinc oxide in water, perfumed with lemon oil and bergamot oil.

Magentropfen "Stresowa" is an alcoholic extract of senna and rhubarb, sweetened with sugar and flavored with oil of caraway.

Massogran and Massolettes contain lactic acid bacilli.

Mayer's Physiologisches Nervensalz occurs as tablets containing ammonium phosphate, and talcum.

Meditannosin is another name for methylene-ditannic acid.

Membrosan is a nutritive preparation containing lecithin, albumin, ox-marrow and nutritive salts.

Methæthyl Henning is a mixture of ethyl chloride and methyl chloride.

Migrainepulver Bulling (migraine powder), is said to contain valerated caffeine, acetanilide, and phenacetin.

Migromint are tablets containing acetyl salicylic acid.

Mirogen is said to be the menthapinolester of formyl trichloride.

Narcole Mixture "Dr. Hirschlaff" contains morphosan, and euscopol.

Nebula Eucalyptic Composita is said to consist of eucalyptus oil, pine oil, cinnamon oil, menthol, thymol, camphor, and tincture of benzoin.

Neura-Lecithin is the name of a 70 per cent. lecithin. It is marketed in the form of tablets and powders.

Neurolin, exploited as a nutritive preparation, is described as "nutritive salts, peroxides, and iron."

Nicotiana soap, recommended for the treatment of skin diseases, especially ring-worm, is a superfatted soap containing precipitated sulphur and tobacco extract.

Novadrin Solution contains novocain and adrenalin.

Novoform, a substitute for iodoform and xeroform, is tetrabromocatechin bismuth, $\text{Bi}(\text{C}_6\text{Br}_4\text{O}_2)\text{OH}$. It occurs as a deep-yellow, odorless powder, insoluble in water but slightly soluble in most of the organic solvents and contains 30 to 32 per cent. of bismuth oxide.

Onéguin Tee (tea), exploited as a blood purifier, contains anise seed, star-anise seed, fennel seed, sarsaparilla, gentian, calamus, centaury, pansy, senna leaves and walnut leaves.

Perthyman, for whooping cough, is a "compound infusion of thyme."

Petrolimentum Liquidum contains paraffin, oleic acid, and spirit of ammonia.

Pilulæ Sanguinis contain hemaglobin and blood salts. They are marketed as such or in combination with various other drugs.

Plasmin Tablets are described as containing the nutritive salts occurring in the plasma.

Pneumonal is a solution of creosotal.

Polypin is a powder said to contain arnica flowers, chamomile flowers, pansy, roasted chestnuts, marjoram and thyme. It is put forward for the treatment of polyp of the nose, etc.

Quimorol is a solution of quinine and urea hydrochloride in physiological serum, and is marketed

both with and without the addition of adrenalin. It is put forward as a local anesthetic, especially for use in dentistry.

Reductol, for obesity, contains extracts of bladder wrack and cascara sagrada.

Rekonvalin contains desiccated milk and lecithin.

Renitol, for the treatment of rhinitis, is a solution of a local anesthetic in an extract of the suprarenal glands.

Roburogen contains desiccated milk, casein, lecithin, lecithin-iron and malt extract.

Rodolin, exploited for the treatment of whooping cough, is a saccharated extract of thyme.

Scharfin, a veterinary preparation, contains mercuric chloride, mercuric iodide and potassium iodide.

Schreiber's Original Ovula are suppositories containing bromine, lupulin and camphor.

Serosal, exploited for the treatment of calcification of the arteries, is a physiological salt mixture containing sodium chloride, phosphate, sulphate and carbonate, magnesium phosphate and calcium glycerophosphate.

Serum Anorganicum Trunccek, contains sodium sulphate, sodium chloride, sodium phosphate, sodium carbonate and potassium chloride, dissolved in water.

Sitosan, Dr. Michaelles, a nutritive preparation, contains water, nitrogenous matter, fat, sugar, starch, crude fiber, phosphoric acid, sodium chloride and ferric oxide.

Sphagnit, exploited as a disinfectant, is prepared from peat by treatment with hydrochloric acid and iron.

Stherosine Orel, is said to contain neurosine, theobromine, guaranine (caffeine?), gentiopicrin, and sugar.

Storaxol, an ointment for insect bites and skin diseases, contains styrax, resorcin, carbolic acid, and precipitated sulphur.

Strobilanthes Crispa, are the leaves of a Javanese acanthaceous plant, said to be used as a remedy for snake bites. An infusion of the leaves is also used for kidney stones.

Szymanol, Szymanskis, exploited for the treatment of rheumatism, consists mainly of camphor dissolved in horse fat.

Tai-tsa-ju, a Chinese loganiaceous plant, is used for snake bite, lepra, etc. It contains a yellow coloring matter and two alkaloids.

Terasol is a mixture of arrowroot, bean flour, and "saccharated iron."

Thymipin, put forward for the treatment of whooping cough, is prepared from thyme and butterwort.

Tri, is an abbreviation for trichlorethylene C_2HCl_3 .

Triela, is another name for tæniol, a tape-worm remedy.

Tuberkosan emulsion contains cod liver oil, eggs, potassium sulphoguaiacolate and calcium "silico-lactate."

Unicum, exploited for removing corns, occurs as sticks, consisting of soap plaster with salicylic acid.

Valkasa is a combination of soluble milk casein and glycerophosphates.

Notes and Queries.

NOTICE.—It is desirable that all questions to be answered under this head should be received before the fifteenth of the month and they must be accompanied with the name and address of the writer.

Queries are not answered by letter. The information supplied in these columns is intended for the benefit of our readers in general, not for the profit of the individual inquirer only.

Solubility of Quinine Hydrobromide.—C. D. C., Ontario, has had a difference of opinion with a fellow-pharmacist as to whether the addition of a little diluted hydrobromic acid is necessary to produce perfect solution in the following:

R Quininae hydrobrom. 3ij.
Aquam ad 5iv.

Misce.

In reply we should say that it all depends upon the variety of quinine hydrobromide used. This salt is not official in the British Pharmacopœia; and in the British Pharmaceutical Codex two varieties are described: Quinine hydrobromide ($C_{20}H_{25}N_2O_2Br$, H_2O) and acid quinine hydrobromide ($C_{20}H_{26}N_2O_2Br_2$, $3H_2O$). The solubility of the first-named is given as about 1 in 55 in cold water. The acid salt is described as being soluble in cold water in the ratio of 1 in 7. The ratio in the prescription submitted by our correspondent is about 1 in 15.

Quinine hydrobromide U. S. P. ($C_{20}H_{24}N_2O_2 \cdot HBr + H_2O$) is the basic salt, the official solubility figures for which are 1 in 40 for water at 25° C. The same salt is official in the French Codex, wherein its solubility is stated as 1 in 44.5 of water at 15° C. The Spanish Pharmacopœia recognizes in bromurum quinicum neutrum the salt having the formula $C_{20}H_{24}N_2O_2 \cdot 2HBr + 3H_2O$, and attributes to it a solubility of 1 in 7. We believe that the quinine hydrobromide of the market is the basic salt, soluble in water at 25° C., in the ratio of 1 in 40. It therefore would not dissolve in the proportion prescribed without the addition of a little acid.

A Question of Liquidity.—"Kansas City," Missouri, writes: "I should like to have you tell me how to make a liquid out of the enclosed prescription, which our customer claims was a liquid when she had it filled before. Since the prescription brought us is a copy, I am inclined to think there is some mistake in it, as I cannot have any luck making a liquid out of it."

Here is the prescription:

R Sulph. præc. 3vj.
Pulv. camphoræ. grs. xx.
Tragacanth 5j.
Aq. rosæ.
Liq. calcis. aa. q.s. ad 3iij.

M. Sig.: Apply.

Our correspondent does not state how he compounded the mixture; and we are at a loss as to whether he made a 3-ounce or a 6-ounce preparation, the characters "aa q.s. ad" being variously interpreted by dispensers. The proper interpretation is "a sufficient quantity of each (of lime water and of rose water) to make (3 ounces); the mixture therefore should measure 6 ounces. If only enough of the menstruum to make 3 ounces is used, which is probably the intention of the prescriber, the liquidity of the

mixture will be less than if the directions are followed literally.

Another matter influencing the appearance of the finished product is the sort of precipitated sulphur used. In this case the pharmacopœial article should be dispensed; but the uniform suspension characteristic of dermatic lotions containing sulphur is usually secured by the use of lac sulphur, a variety of precipitated sulphur, prepared by precipitation with sulphuric acid from a solution of calcium polysulphide. Interesting notes on this subject appeared in the CIRCULAR for July, 1910, page 362; and March of the same year, page 119.

If "Kansas City" will reduce the camphor to a very fine powder by triturating it with a little ether, triturate the powdered tragacanth with the powdered camphor, add gradually with constant trituration about 2½ ounces each of rose water and lime water, sieve the sulphur on the surface of this liquid, and incorporate it by further trituration, adding enough of the menstruum to bring the finished product up to 6 ounces, we believe the result will be satisfactory to the patient and himself. If a 3-ounce mixture is required, that would be another story.

Preparing Concentrated Sulphuric Acid.—J. S., New York.—To prepare pure sulphuric acid from an acid containing 10 per cent. of water, one subjects the weaker acid to fractional distillation. This is a simple but very hazardous operation that can hardly be carried on in safety by one not well prepared for it. Laboratory experiments in this direction, while risky, are not impracticable, the following quotation from the United States Dispensary being to the point:

The only way to obtain pure sulphuric acid from chamber acid [sulphuric acid as it leaves the leaden chambers in the course of manufacture; it has a specific gravity of about 1.55] is by distillation. Owing to the high boiling point of this acid, the operation is rather precarious, in consequence of the danger of the fracture of the retort from the sudden concussions to which the boiling acid gives rise. We recommended that a retort of the capacity of from two to four quarts be used in distilling a pint of acid. This is connected, by means of a wide glass tube three or four feet long, with a receiver surrounded with cold water. All the vessels must be perfectly clean, and no luting employed. The retort is then gradually heated by a small furnace of charcoal, or, what is better, by means of a sand bath, the retort being buried in the sand up to the neck. It is useful to put into the retort a few sharp-pointed pieces of glass, slips of platinum foil, or clay tobacco pipe tubes, with the view of diminishing the shocks produced by the acid vapor. The distilled product ought not to be collected until a dense grayish-white vapor is generated, the appearance of which is a sign that the pure concentrated acid is coming over. If this vapor should not immediately appear, it shows that the acid subjected to distillation is not of full strength; and the distilled product, until this point is attained, will be an acid water. In the distillation of sulphuric acid, Lemberg uses, instead of pieces of glass or platinum foil, fragments of the mineral called quartzite; these after a time get worn and must be changed.

Of course in conducting this operation, good ventilation must be provided for and the corrosive fumes carefully avoided; which caution naturally applies in all cases where poisonous gases are liberated.

Camphorated Rhubarb.—C. H. J., Maryland.—We know of no definite formula for a preparation of this name. If anyone can help us, we should be glad to hear from him.

Non-Hardening Tooth Paste.—C. H. J., Maryland, makes a tooth paste, the principal ingredients of which are precipitated chalk, castile soap, glycerin and water. He has used the latter two in varying proportions, but in each case the paste became too stiff for use in an ordinary tube. He asks for help.

We suggest that he use instead of a portion of the water, solution of sodium hydroxide, say, $2\frac{1}{2}$ to 3 ounces in each pound of his finished paste. A formula for a tooth paste in which the use of this ingredient is directed is given in the CIRCULAR for May, page 253.

Incidentally we might add that we received this "tip" from a man who having used the alkali solution with good effect passed this knowledge along for the benefit of his brother pharmacists. In striking contrast to this man's action is the request of our present querist that we do not reveal to our readers his tooth paste formula, although dozens which we believe are at least as good have appeared in the CIRCULAR during recent years. If every man held on to all he knew, C. H. J. would have to work out for himself a method of improving his paste, or do without.

Another man who believes in the "give and take" principle on which we endeavor to conduct this department, is W. C. Kirchgessner, and in a paper which is printed in the CIRCULAR for October, 1904, page 233, he gives his formula for tooth paste for tubes, as follows:

Mass solution..... 200 c.c. (mils).
Precipitated chalk..... 500 grammes.

Mix, and put into collapsible tubes at once.
The tubes should stand a day or two before use.

Mass Solution.

Gelatin, in small pieces..... 30 grammes.
Castile soap (moist)..... 60 grammes.
Saccharin 8 grammes.
Menthol 8 grammes.
Oil of eucalyptus..... 8 c.c. (mils).
Oil of wintergreen..... 22 c.c. (mils).
Glycerin 1000 c.c. (mils).
Water 500 c.c. (mils).
Hot water..... 500 c.c. (mils).

Soak the gelatin in the water over night; dissolve the soap and saccharin in the hot water; mix the menthol, oils and glycerin. Pour all together in the order named, and let the mixture stand a day or two before using.

Lambert's Lithiated Hydrangea.—T. S., Pennsylvania.—Such knowledge as we have concerning this preparation is derived from the statement borne by the label on the bottle in which it is sold, which is that it "represents the active properties of fresh hydrangea arborescens, berberis aquifolium and scrophularia nodosa, together with benzoate and salicylate of lithium." It is also stated on the label that the preparation contains 25 per cent. of alcohol.

It seems that it would be no great pharmaceutical trick to turn out such a preparation, adjusting the proportions in such way as to have the finished product represent the doses desired by the prescriber. As the proportion of alcohol stated is rather small for a fluidextract or a tincture, glycerin might be used as a diluent either before or after extraction.

Pain Expeller.—J. K., Illinois.—There are so many different kinds of pain, caused by so many different kinds of troubles, that it is impossible to devise a universal pain expeller.

If you want an all-round liniment for use on anything from an aching tooth to an ingrowing toe nail, you might make some experiments, using one of the following formulas as a basis:

I.

Spirit of camphor..... 1 ounce.
Spirit of ammonia..... 4 drams.
Oil of sassafras..... 4 drams.
Oil of cloves..... 2 drams.
Chloroform 4 drams.
Oil of turpentine..... 4 drams.
Alcohol..... enough to make 5 ounces.

II.

Soap liniment..... 3 ounces.
Tincture of capsicum..... 1 ounce.
Ammonia water..... 1 ounce.
Alcohol 1 ounce.

III.

Camphor 1 ounce.
Chloral hydrate..... 1 ounce.
Chloroform 1 ounce.
Ether 1 ounce.
Tincture of opium..... 4 drams.
Oil of origanum..... 4 drams.
Oil of sassafras..... 4 drams.
Alcohol..... enough to make 5 pints.

Euquinine and Sodium Salicylate.—B. E., New York, found that a thick mixture, that could be poured from the bottle only with difficulty, resulted from the compounding of the ingredients called for by the following prescription:

R Tr. nucis vom..... ʒi.
Euquinine ʒi.
Sod. salicylat..... ʒij.
Elix. aromat..... q.s. ʒiij.

M. Sig.: ʒi t. i. d.

Aside from the fact that euquinine is such a bulky substance as to produce a rather thick suspension in the proportion given, we think that it reacts with sodium salicylate in the manner common to the ordinary quinine salts, euquinine being quinine ethylcarbonate. One characteristic of quinine salicylate which results from the combining of the alkaloid or its salts with salicylic acid or its salts is bulkiness. Therefore there are in the mixture under consideration two factors that tend to make it thick and non-fluid.

It is a prevalent consensus that euquinine is best dispensed dry in cachets, capsules or powders. It may be suspended in a non-alcoholic menstruum not in combination with other drugs.

Making Solution of Hydrogen Dioxide.—B. L. E., Illinois.—As a rule the methods of making solution of hydrogen dioxide in use by the large manufacturing houses are either trade secrets or are protected by patents. The process of which you say you have read was the official one in this country under the Pharmacopœia of 1890—see that book or a dispensatory. A note on one of the processes, patented abroad and possibly in this country, too, appears in the CIRCULAR for January, 1908, page 17.

Waterbury's Metabolized Cod Liver Oil.—T. S., Pennsylvania.—An examination of this preparation in the laboratory of the American Medical Association a couple of years ago showed that it contained no cod liver oil. Last year (see the CIRCULAR for May, 1910, page 256), the supreme court of the District of Columbia decided that the compound "does not contain cod liver oil . . . does not contain anything that ever was cod liver oil, and . . . does not contain anything that was made from cod liver oil." Incidentally, the name of the preparation has been changed since that decision.

All druggists who are interested in such things—and all druggists should be—should secure from the American Medical Association, Chicago, the pamphlets in which reports of its chemical laboratory are given. Not only will these be found of much general interest and value, but in an especial way will they open the eyes of druggists to the manner in which members of their calling are made the agents for the distribution of a great deal of stuff which is not what it is claimed to be, and therefore not what high-minded business men would care to handle.

But to get back to the Waterbury preparation: It is said to contain creosote and guaiacol. Formulas for "tasteless" preparations containing gaduol, but no cod liver oil, appear in the issues of the CIRCULAR for June and July, 1909, pages 293 and 350, respectively. The one in the latter issue is as follows:

Gaduol	2½ pints..
Oil of orange peel.....	9 ounces.
Fuller's earth.....	10 pounds.
Port wine.....	17 gallons.
Compound tincture of gentian....	5 gallons.
Fluidextract of wild cherry.....	2½ gallons.
Glycerin	5 gallons.
Extract of malt.....	4 gallons.
Compound syrup of hypophosphites	6¾ gallons.
Fluidextract of licorice.....	1¼ gallons.
Caramel	2½ pints.
Alcohol	2½ gallons.

This recipe is for a 40-gallon batch.

The creosote and guaiacol may be added in the desired proportions, dissolved in an appropriate amount of the alcohol.

Of course no honest merchant would offer as and for a cod liver oil preparation an article which he knew contained no cod liver oil. Whether or not gaduol is effective is a question for the physician to decide.

Pil. Blair.—C. P., Connecticut, wants to know what should be dispensed on a physician's prescription for "Pil. Blair, No. 24."

We do not know, but if guessing is in order, we should like to have three guesses. Our first would be that the physician wanted the proprietary Blair's gout pills; the second would be that he had in mind some Blair's pill of local fame; and the third guess we reserve until we find out whether or not both the others are wrong.

In a case involving the health, and perhaps even the life, of a human, we consider it most reprehensible for the prescriber to leave room for a reasonable doubt as to his meaning, or to mislead the dispenser by sending him an incomplete or illegible prescription. When the dispenser is in doubt and is unable to reach the prescriber, his safe course is to decline to fill the prescription.

Lice Exterminator.—J. K., Illinois.—Before recommending something for use in an effort to exterminate lice one should know what kind of lice are to be exterminated, and where they are.

We guess you want an exterminator for the lice which infest the human body, the head or other portions. Such an exterminator is a powder, said to be used largely in Europe, where it is known as *pulvis capuchinorum*. It is composed of equal parts of sabadilla seed, stavesacre seed, parsley seed and tobacco, all in fine powder.

Sabadilla and stavesacre are also exhibited for this purpose in the forms of tinctures and ointments.

Compound Tincture of Larkspur.

Larkspur is a popular poison for pediculi, and a number of formulas for compound tinctures of this drug have appeared in the CIRCULAR during the past few years. Some of these follow:

I.

Larkspur seed, ground.....	8 ounces.
Green soap.....	2 ounces.
Potassium carbonate.....	1 ounce.
Oil of lavender flowers.....	1 dram.
Alcohol	24 ounces.
Water	8 ounces.

Macerate for ten days with occasional agitation and filter, adding enough of a mixture of alcohol 3 parts and water 1 part, to make 32 fluid ounces; or the tincture may be prepared by percolation, after maceration for a few days.

II.

The following formula is for a preparation which is said to give better results, to be cheaper, and to be more easily made than the ordinary tincture:

Larkspur seed.....	100 grammes.
Potassium carbonate.....	10 grammes.
Alcohol	500 c.c. (mils).
Water.....	enough to make 1000 c.c. (mils).

Mix the seed and the carbonate with 500 c.c. (mils) of water; boil the mixture for five minutes; when it has become cold, add the alcohol; strain, and add enough water to make the finished product measure 1000 c.c. (mils). Filter, if not clear.

III.

A tincture which seems to give satisfaction to the trade in a town which is the seat of one of our largest universities, is as follows:

Larkspur seed.....	4 ounces.
Boiling water.....	6 ounces.
Alcohol	10 ounces.
Diluted alcohol, enough to make	1 pint.

Crush the seed in an iron mortar, transfer them to a suitable vessel, pour the boiling water upon them, cover the vessel and let the whole stand until cool; add the alcohol, stir well, and after twentyfour hours, filter through cotton.

IV.

In one of the large manufacturing establishments of this city, larkspur seed are ground, washed with benzin to remove the oil, and packed in a percolator with 85 per cent. alcohol for twenty-four hours. The stopper is then removed from the percolator, and alcohol of the same strength added until 1000 c.c. of percolate are obtained from every 100 grammes of the seed used.

This class of preparations is poisonous, and may

even exert their toxic effect through abrasions in the skin.

Desmons (*Jour. méd. Paris*) points out that the external shell of the ova of the pediculus capitis, because of its chitinous nature, is resistant to liquid applications unless they contain acetic acid. For the destruction of the insects and their ova he suggests that the infested parts be carefully wetted with the following:

Tincture of benzoin.....	5 c.c. (mils).
Corrosive chloride of mercury.	1 gramme.
Glacial acetic acid.....	12 c.c. (mils).
Cologne water.enough to make	1000 c.c. (mils).

Make a solution.

Because of the desquamative effect of too frequent applications of solutions of acetic acid to the skin, lotions containing it should not be dispensed except for use under the direction of a physician; and the well-known danger of using solutions of corrosive mercuric chloride should prevent druggists from indiscriminately putting this nit killer into the hands of the laity.

Deferred Payments.—John J. Davies, Pennsylvania, writes entertainingly as follows:

I have been a beneficiary of THE DRUGGISTS CIRCULAR for thirty years. During that time I have perused it monthly from cover to cover, which, of course, includes advertisements as well as reading matter, and as a result have derived from its columns a great deal of information of a purely commercial as well as a professional character. In return for this, beyond a reasonably prompt payment of my subscription fee, I have done nothing outside of several minor contributions to the department of "Notes and Queries," and this in face of the fact that the bulk of contributions to our class journals must necessarily come from the every-day, working pharmacist.

Every pharmacist worthy of the name, like every housewife, evolves from time to time little "wrinkles" of his own either in manufacturing or dispensing which cannot properly be called trade secrets—little "wrinkles" which save time or money, or which constitute an improved method—and it is his duty, whether he realizes it or not, to give his professional brethren the benefit of his experience. Knowledge which gives a man a commercial advantage over his competitors becomes a part of his stock in trade, and he is therefore justified in keeping it to himself; unless it is of that character, however, if he persists in keeping it to himself he is an ingrate, or else has an imperfect appreciation of his duty to his fellowman.

The following is therefore contributed as a species of conscience money which may or not be of value accordingly as the reader finds in it anything new or something already familiar to him.

Massing Pepsin.

In dispensing pepsin in pills or capsules, that is, when the pepsin is massed, difficulty is encountered because of the glutinous character of the mass. It becomes more like a piece of rubber, and consequently hard to roll. I refer, of course, to the granular pepsin which most everybody uses. If one uses the insoluble pepsin he will have no difficulty, but an ideal mass.

Dispensing Basham's Mixture.

The requirement that Basham's mixture should be made fresh often causes inconvenience when the dispenser is rushed. The instability of the compound being due to the iron, I get over this trouble by making up a supply of this preparation, omitting, however, the iron. When a prescription comes in for Basham's mixture we measure the prescribed quantity, and add thereto 20 minims of tincture of ferric chloride to each ounce, and all is done.

Griffith's Mixture, Too.

The same idea holds good in the case of Griffith's myrrh mixture. Enough of this preparation (omitting the iron) may be made to last six months, and when it is prescribed

all the druggist has to do is to take the required quantity, add 2½ grains of ferrous sulphate to each ounce and it is ready, and just as active as if prepared entirely at the time.

Solution of Magnesium Citrate.

Very few realize the double rôle played by carbonic acid in the official solution of citrate of magnesia in acting as a preservative and as an aid to palatability. It is a mistake to postpone the addition of the potassium bicarbonate until the solution is called for, as in the mean time this weak saccharine solution, like all others of its class, is prone to undergo decomposition. If we add all the bicarbonate as soon as the preparation is made there is a probable loss of gas through imperfect stoppers. To obviate this dilemma we add one-half, or 20 grains, of it when bottled, and the other half when the solution is called for. The first half acts as a preservative and the latter half gives it all the sparkle and snap required.

Colorless Tincture of Iodine.

We all have an occasional call for colorless tincture of iodine. Whichever method is used in making it, whether by neutralization with ammonia water or by the use of sodium hyposulphite, the result is an alkaline iodine salt. The first is hardly suitable for extemporaneous use, and the latter ultimately throws down a precipitate of free sulphur. A preparation equivalent to that made by either of these methods can be made in two or three minutes by making a 10 per cent. solution of the iodide of ammonium or of sodium in diluted alcohol.

Restoring Granulated Ointments.

Stock ointments which have become granulated—that is to say, there has occurred a separation of the olein and palmitin, leaving them unsightly but without rancidity—can be brought back to their original condition by simply melting them.

To Powder Camphor.

The usual method of powdering camphor in a small way is by means of alcohol. A better method is by means of chloroform, which because of the small quantity required to do the work, the rapidity of its evaporation and the greatly reduced price of chloroform, is well adapted for a "hurry-up" job.

Improving an Oil Atomizer.

Finally, if one ever has a call for an oil atomizer and has nothing but the water variety on hand, he should not lose a sale, but should take one of the latter kind, providing it has hard rubber pipes, and with the wire which comes with it previously made red hot, burn the opening in the tip so as to increase its bore slightly, when he will have what is wanted.

Mr. Davies manifests a spirit which calls forth great admiration on our part. There are doubtless many druggists like him who could report numbers of little wrinkles if they would only take the time to jot down on paper some of their ideas. We trust that a reading of Mr. Davies' contributions will spur them to take this action.

Our present contributor has our thanks not only for his notes, but for the manifestation of the "give and take" spirit which we have so often advocated in connection with this department.

"Venice Lime."—B. E., New York.—We had never known the term "Venice lime" before receiving your communication; and we are not able to find any other reference to it. It may be that you have confused "Vienna" or "Viennese" and "Venice"; "Vienna lime" and "Viennese lime" are names sometimes applied to Vienna powder or Vienna caustic, potassa with lime, U. S. P., 1890. The official directions for preparing this compound were to take equal parts by weight of potassa (potassium hydroxide) and lime (calcium hydroxide) and rub them together in a warm iron mortar so as to form a powder, which should be kept in well-stoppered containers.

Russell's Emulsion of Mixed Fats.—T. S., Pennsylvania.—We do not know how this preparation is made. In the CIRCULAR for June, 1907, page 419, is published a formula for a pancreatized emulsion of mixed fats, supplied by Prof. I. V. S. Stanislaus, who said that it was "used by a well-known manufacturing house in making a [so-called] nutrient emulsion." It is here reproduced:

Pancreatized Emulsion of Mixed Fats.

Oleomargarin (fresh).....	4 ounces.
Soap	350 grains.
Tragacanth, powdered.....	35 grains.
Benzoic acid.....	15 grains.
Glycerole of pancreatin.....	1 fl. oz.
Water.....	enough to make 1 pint.

Heat the soap with 4 fluid ounces of water until dissolved. Add the hot solution to the melted oleomargarin, mix by rapid agitation or trituration, add the tragacanth, continue agitating until a nucleus emulsion is formed, add the glycerol and the acid and make up to 1 pint with water.

Glycerole of Pancreatin.

The glycerole of pancreatin called for in the foregoing formula is made as follows:

Pancreatin	100 grammes.
Sodium bicarbonate.....	4 c.c. (mils).
Distilled water.....	200 c.c. (mils).
Glycerin.....	enough to make 1000 c.c. (mils).

Dissolve the sodium bicarbonate in the water, and dissolve the pancreatin in this solution. Then add the glycerin. Let the mixture stand in an open vessel for at least twenty-four hours, then filter and preserve for use.

Mathematics of Solution.—F. E. M., Massachusetts, asks: "If potassium iodide is soluble in 7/10 parts of water, how much will be required to make 1 fluid ounce of saturated solution of potassium iodide?"

How much of what, potassium iodide or water? But never mind that, as the question is not one that can be solved by mathematics, anyhow. If our querist wants to find out how much potassium iodide is required to saturate 1 fluid ounce (454.6 grains) of water, knowing that 1 grain is required to saturate 7/10 grain of water, the application of the rule of three will show him, pretty quick, that 0.7:1::454.6:649.4. Therefore, 649.4 grains of potassium iodide is required to saturate 1 fluid ounce of water. Just what the solution will measure, however, can be determined only by measuring it. Its weight will be that of the water and the potassium iodide combined, which is 1104 grains. It is an easy matter to ascertain (at least approximately) the weight of a carefully measured fluid ounce of the saturated solution, and this, with the data already at hand enables one to arrive at the desired figure.

Fat Off.—B. B. G., New York.—We do not know the composition of this preparation. We do know, however, that there are several notes in recent volumes of the CIRCULAR on fake and dangerous nostrums offered as fat reducers. Druggists should advise their customers who are over-provided with adipose tissue to consult reputable physicians and leave quacks and their remedies severely alone.

Bismuth a Possible Teniacide.—James A. Bethune, Maryland, writes.

Seeing the note on bismuth as a possible teniacide in the CIRCULAR for February, page 75, reminds me of an occurrence which I chronicled in my memorandum book as follows:

In 1882, while I was clerking for a drug firm in a small town in Virginia, a prominent young lawyer of the town brought to me some prescriptions, written by a very able physician and surgeon, for the relief of diarrhea; for some days the trouble was not relieved, and the physician then gave, as far as I can recall, say:

Pepsin	5j.
Bismuth subnit.....	5j.
Pulv. aromat.....	5j.

M. Ft. chart. No. XII.

Sig.: One every four hours.

After two or three hours the patient came to the store and asked for a vermifuge, saying he had passed a large worm.

Query: Did the pepsin digest the worm; or did the aromatic powder intoxicate the worm and loosen its hold?

Your note may show that it was the bismuth subnitrate that did the work.

This report from Mr. Bethune not only throws an additional light on the subject immediately under discussion, but it shows how even wise men sometimes stumble along in the work and happen to hit the right thing.

Hostelley's Wine of Cod Liver Oil.—T. S., Pennsylvania.—We do not know what the formula of this preparation is, but since you say that what you want to make is a wine of cod liver oil containing the chlorides of iron, arsenic and mercury, it would seem that the way to proceed would be to make a wine of cod liver oil according to any acceptable formula found in pharmaceutical literature, and add to it the desired proportions of the other ingredients. In this connection we call your attention to a note on the Waterbury preparation on page 567.

We understand that the claim is made that each teaspoonful of the preparation as turned out by Hostelley contains 21 minims of cod liver oil, 1/200 grain of arsenic chloride, 1/128 grain of corrosive mercuric chloride, 1/4 grain of ferrous chloride, and port wine and vegetable flavoring enough to bring the total up to the specified quantity.

Thompson's Emulsion of Linseed Oil.—C. D. C., New York.—When you sent your query you had not received a copy of the September issue of the CIRCULAR, on page 483 of which appears the formula requested.

However, the CIRCULAR for July, 1910, was available, on page 365 of which may be seen a formula for this emulsion, the proportions of the ingredients directed therein being slightly different from those given last month. Directions for making this preparation are printed also in the issues of the CIRCULAR for November, 1907, page 735, and August, 1904, page 179.

Those who keep their copies of the CIRCULAR on file and refer to them when in need of information, save themselves many annoying waits and prevent the loss of many sales.

Liquor Cresolis Compositus.—B. E., New York.—When you wrote, you had not received the September issue of the CIRCULAR, on page 477 of which appears a note that we believe you will find helpful. We suggest that you also read the note in the August issue, page 419.

Green Show Globe Color.—J. K., Illinois.—There is no dearth of formulas for show globe colors, green and other kinds, but as to which of these yield permanent colors only experiment can demonstrate, and these experiments, to be of the most value, should be conducted by the man, in the store, and with the materials that are to figure in the trial of the finished preparation. Some formulas follow, all being for green solutions:

I.

Verdigris 1 part.
Distilled water..... 9 parts.
Sulphuric acid..... enough.

Mix the verdigris with the acid, set aside for a few minutes, add to the distilled water, and filter.

II.

Copper sulphate..... 1 part.
Ammonia water..... 9 parts.
Water 240 parts.
Solution of potassium dichromate... enough.

Dissolve the copper sulphate in the distilled water, add the ammonia water and enough of a solution of potassium dichromate to give the desired tint, and filter.

III.

Copper sulphate 9 parts.
Hydrochloric acid..... 8 parts.
Water 84 parts.

Dissolve the copper salt in the water, add the acid and filter.

IV.

Copper sulphate..... 7 parts.
Ammonium chloride..... 7 parts.
Water 186 parts.

V.

Nickel 85 parts.
Hydrochloric acid..... 132 parts.
Nitrous acid..... 55 parts.
Water 4,000 parts.

Dissolve the nickel in the hydrochloric acid, add the water, then the nitric acid, and filter.

Olive Green.

Copper sulphate..... 35 parts.
Hydrochloric acid..... 16 parts.
Iron subcarbonate..... 4 parts.
Water 450 parts.

Dissolve the copper sulphate in the water and the iron in the acid; mix the two solutions, and filter.

Pea Green.

Nickel 1 part.
Nitric acid..... 4 parts.
Water 495 parts.
Solution of potassium dichromate... enough.

Dissolve the nickel in the nitric acid, add the water and enough of solution of potassium dichromate to give the desired color.

An interesting article on the origin and use of colored show globes in apothecary shops appears in the CIRCULAR for March, 1910, page 133.

Rat and Roach Pastes.—G. C. S., Kentucky.—Formulas for phosphorus rat and roach pastes appear in the issues of the CIRCULAR for April, page 179; October, page 517; and November, page 577, all for last year.

Cloudy Syrup of Hypophosphites.—G. A. L., Ohio.—Much experimentation and study have been devoted to perfecting a formula for a compound syrup of the hypophosphites that would stay clear. Not only from the standpoint of elegance is a clear preparation desirable; there have been fatalities attributed to an overdose of strychnine taken in a cloudy syrup. Crystals of the alkaloid will sometimes form and adhere to the bottle, and may become dislodged afterward and so enormously increase the quantity in a later dose, and the same result occurs when an amorphous precipitate may not be diffused by always shaking before using.

Faulty manipulation is responsible for most of the cloudy specimens of the official syrup whose makers come to us for relief. We do not care to advise the marring of the official process and therefore we offer the following formula which according to the Standard Formulary produces a cloudy syrup:

Calcium hypophosphite..... 180 grains.
Sodium hypophosphite..... 60 grains.
Potassium hypophosphite..... 30 grains.
Iron phosphate, soluble..... 15 grains.
Manganese hypophosphite..... 15 grains.
Quinine sulphate..... 5 grains.
Strychnine sulphate..... 1 grain.
Distilled water..... 4 ounces.
Syrup..... enough to make 1 pint.

Heat the solids with the water until dissolved; add the syrup, heated to boiling; boil for a few moments, stirring constantly, and strain.

The cloudiness of the product was the cause of much dissatisfaction with the formula for syrup of hypophosphites with iron of the 1890 Pharmacopœia. Perhaps there may be something of interest in the note on Tscheppe's formula for syrup of hypophosphites in the CIRCULAR for April, 1910. Physicians who express a preference for a cloudy syrup should be told of the risks its use entails.

The Manufacture of Chloralformamidum.—E. O. S., Connecticut, asks if we can explain why there is only one make of chloralformamidum on the market. We can not. That is a question for the chemical manufacturers to answer. The product was patented in this country in 1890, and as the life of a patent is seventeen years, presumably the patent was still in force when the product became official upon the adoption of the eighth revision of the United States Pharmacopœia some six years ago. Why manufacturers other than the patentees have not put their own makes of this chemical on the market, we repeat that we do not know.

Etching on Steel.—C. E. D., Pennsylvania.—Letters or designs may be etched on steel tools with almost any strong acid, as nitric, for instance. The process consists of covering the portion of the tool to be etched with a thin film of wax, marking the design on and through the wax, and then applying the acid to the portions of the steel thus denuded.

Of course some precautions must be taken to protect all other portions of the metal from the corroding influence of the acid, and also to see that the design is graven in the wax in a uniform manner, so that the etching will appear neat and even when completed.

Lice on Poultry.—F. G. S., Indiana.—Bulletins on many subjects of particular interest to pharmacists are issued by the United States department of agriculture, and we have frequently urged our readers to take advantage of the opportunity thus afforded them to get for little or nothing books and pamphlets of much value. A few years ago Nathan Banks, of the bureau of entomology of the department prepared a paper on "Mites and Lice on Poultry," which was published as Circular No. 92. In this pamphlet are descriptions and illustrations of all the insects which infest hens, together with directions for preparing and applying remedies and preventives. Extensive quotations from the pamphlet are given in the CIRCULAR for April, 1910, page 173. Portions of another government bulletin on the subject are reprinted in the CIRCULAR for April, 1909, page 192. Regarding a powder to rid hens of lice, the first-mentioned pamphlet says: "Sulphur mixed with air-slaked lime, 10 pounds of sulphur to a half bushel of lime, is also often used against lice. This may be scattered everywhere in the house, or mixed in the dust wallow."

Recently the CIRCULAR has printed the following formula:

Crude carbolic acid.....	1 pint.
Carbon disulphide.....	1 ounce.
Oil of tar.....	1 ounce.
Coal oil.....	4 ounces.
Sawdust	enough.

Mix the liquids and add as much sawdust as the mixture will saturate.

This powder freely strewn about the nests of hens will rid them of objectionable insects.

In another recent issue of the CIRCULAR a poultry louse powder containing equal parts of naphthalin, sulphur and tobacco is mentioned.

Some references to means to be used against other kinds of lice may be found on page 567. Perhaps suggestions made there may be useful in connection with the subject, which is herein under discussion.

Beauty Prescription Fakes.—New Jersey.—It is said that a mixture of two parts of alum and one part of epsom salt can not be distinguished by chemists from *saxolite*.

Elsewhere in this issue (page 574) we have a note on mercolized wax; and in the CIRCULAR for January, 1910, page 26, are notes on *almazoin* and *spurmax*, with formulas. The former is said to consist of tragacanth, borax and magnesium carbonate, and the latter to be simply epsom salt, colored and perfumed.

The saying that there is a sucker born every minute must be substantially true, else how would the people who put these things on the market get along?

Salicylic Acid plus Sodium Bicarbonate.—W. E. B., Maine.—When salicylic acid and sodium bicarbonate are brought together in solution, sodium salicylate is formed and carbon dioxide is liberated. Excess of alkali, or even the oxygen of the air, will darken the mixture.

Inventory Sheets for Druggists.—G. A. M., New Jersey, asks where he can buy these. As we are unable to answer him, we pass the question along to our readers.

Improving Official Directions.—F. W. Scott, Jr., New York, has favored CIRCULAR readers with many good formulas and practical notes, and to show that he has not lost interest in such things he now sends us the following:

Stokes' Expectorant.

The National Formulary directs in making Stokes' expectorant that to the neutralized fluidextract of squill, be added, in order, the fluidextract of senega, the camphorated tincture of opium and the solution of ammonium carbonate, and then sufficient syrup of tolu to make the required volume. I obtain a much more satisfactory preparation, and one that requires a less careful shaking on dispensing, by mixing the ingredients in this order: To the neutralized fluidextract of squill, add the fluidextract of senega and camphorated tincture of opium; mix well and add sufficient syrup of tolu to make 850 c.c. (mils). When this is well mixed, add the solution of ammonium carbonate and sufficient syrup of tolu to make 1000 c.c. (mils). Mix well.

And now while we are talking about mixture we might improve on the method of preparing U. S. P. rhubarb and soda mixture. If we proceed as directed in the Pharmacopœia much of the oil in the spirit of peppermint will separate and the fluidextracts will precipitate to a great extent. If, however, we follow the directions below the trouble will be lessened. To the glycerin add in order the spirit of peppermint, the fluidextracts, and water enough to make 550 c.c. (mils), shaking after each addition. Dissolve the sodium bicarbonate in enough water to make 450 c.c. (mils) and add this solution slowly during constant stirring to the first mixture.

We feel sure that our readers join us in thanking Mr. Scott for this renewed manifestation of his belief in the "give and take" policy of this department of the CIRCULAR, and also that the committee of revision of our two official books will give due consideration to his suggestions.

Pharmaceutical Notes.—Otto Raubenheimer, New York, who may always be depended upon to find out something about almost any pharmaceutical subject that would escape the attention of the casual observer, favors us again, writing what follows:

Mullein Oil.

As a semi-homœopathic pharmacist, permit me to make a few remarks on this subject, touched upon in the CIRCULAR for September, page 476. A most interesting account of the history of mullein oil is given in New, Old and Forgotten Remedies, a compilation of papers by many writers, by E. P. Anshutz, published by Boericke & Tafel, Philadelphia. Mullein oil was introduced into homœopathic medicine, as a specific against deafness, by Dr. A. M. Cushing, in 1884, after his father, "whose house was the home for all poor tramps, as well as ministers," had been cured by one application of it.

The original method of preparation is given as follows: Fill a bottle with the blossoms of *Verbascum thapsus*, cork tight and hang in the sun for four or five weeks. By that time there will be an oily liquid distilled [O.R.]. Mix with 10 per cent. of alcohol. It is evident that the yield by this process is but trifling. And very likely for this reason the so-called mullein oil is to-day a tincture.

The American Homœopathic Pharmacopœia III is silent on the preparation of mullein oil. But the homœopathic authority of the world, the Pharmacopœia Homœopathica Polyglotta, by Dr. Willmar Schwabe, gives the following method for the preparation of the new so-called mullein oil:

"*Verbascum ad usum externum*: The fresh herb of *verbascum thapsiforme*, collected at the beginning of flowering, is pounded to a pulp and is then macerated with 4 parts of 90 per cent. alcohol during fourteen days, agitating three times daily. Then express and filter. Physical characteristics: reddish-brown color and slight aromatic odor and taste."

Yellow Tinted Compound Syrup of Hypophosphites.

Permit me to point out that your South Carolina correspondent (September, page 476), is unnecessarily alarmed

about the yellow tint in this syrup. Compound syrup of hypophosphites, according to the present U. S. P. process, as well as according to former N. F. process, has a yellow or golden-yellow color. This is due to the solution of iron and manganese hypophosphites in sodium citrate. I do not agree with your statement that "the yellow tint of the finished syrup is doubtless an indication of the change of some of the ferric salt into the ferrous state," as the iron in this preparation is in the ferric state [which is probably not true of the preparation referred to by our South Carolina friend who stated that his solution of iron and manganese hypophosphites was "rather dark" and not "clear greenish" as it is described in the Pharmacopœia.—Editor THE DRUGGISTS CIRCULAR.]

This query as to the color of compound syrup of hypophosphites again strengthens my belief in the advisability of adding physical descriptions to the monographs of the galenical preparations of the United States Pharmacopœia in a great many instances. Such a simple description as yellow color and bitter taste would readily help to differentiate the compound syrup from the plain, which could be described as colorless and sweet. This would be a help to the pharmacist as well as to the physician, and the latter, I am sorry to state, is almost entirely ignorant as to the physical and chemical characteristics of the U. S. P. preparations which he prescribes or, at least, which he should prescribe.

In connection with this I might also call the attention of your readers to the fact that the compound syrup of hypophosphites should be kept in the dark, or at least away from the light, as direct light will in time bleach it so as to render it almost colorless. This has been my own experience (and, after all, experience is the very best teacher) in displaying bottles of this syrup and exposing them to direct light. Undoubtedly the manufacturing houses for this very reason put up this syrup in amber bottles or in bottles wrapped in paper.

The most that we can say about Friend Raubheimer is that we wish there were more like him—more readers of the notes in this department who are givers-and-takers.

Why, When and How Queries Are Answered.—For the benefit of a number of readers who have requested answers to their queries by letter, which requests, as much as we should like to grant them, we have been obliged to deny, we again call attention to the standing notice at the head of this department. And to show all our friends that we are not arbitrary or unreasonable about this matter we are reproducing a portion of an editorial article published in the CIRCULAR a few years ago:

As a courtesy to the individual querist, and for the purpose of making the columns of his paper more helpful to all his readers by discussing therein those questions which actually have presented themselves to one or more of them, the editor is glad to give in the paper such answers to all proper pharmaceutical queries as he knows or can find, and to help to discover, by giving the queries publicity, the answers to such questions as he can not locate by other means at his hands. All our unanswered queries are kept in a special drawer, and we make it a point to empty this drawer, if possible, on the fifteenth of each month. As we pen these lines, on the sixteenth, there are in this drawer, out of the hundreds of letters or cards requesting information that have reached us this year, only three that have not been disposed of, and steps looking to a proper disposition of these have been taken.

It very frequently happens that before he can answer a given question the editor must refer to authorities or search records which are not within easy reach. Perhaps the desired information is at Albany, or Washington, or in the subscriber's own State a thousand miles from New York, or it may be that the answer to the query is dependent upon chemical changes in some mixture which do not take place at once. So even if the undivided time of the editor were at the command of the individual querist, it is manifest that it would be impossible for him to reply by return mail, or even, in many instances, in the next issue of the paper.

But the duties of an editor are manifold. He can not

devote his whole time to answering queries, any more than he can devote his whole time to reading proofs, finding fault with the printer, writing letters to modest pharmacists who have to be urged to send their photographs for reproduction, or preaching little sermons to unreasonable and impatient querists. When the editorial staff of the CIRCULAR has done all the things mentioned, together with a thousand and one others, from a recitation of the harrowing details of which we feel that our innocent readers are entitled to protection, it is time for the CIRCULAR to go to press; and thirty days is an all too brief period in which to go through all this again, with variations, for the next month's issue. That is why we keep a notice standing at the head of our Notes and Queries department to the effect that queries to be answered in the issue of the paper for a certain month should reach us before the middle of the previous month. But no guaranty goes with this notice that if the query reaches us before the fifteenth it will be answered in the issue for the succeeding month.

As to answering queries by letter, not only do we refrain from doing this for the reason set forth in that aforementioned standing notice, to wit, that our answers are for the information of our readers generally and not for the exclusive use of any individual, but for the further reason that if we took the time to answer queries by personal letter we not only would not be able to fill our Notes and Queries department with the interesting matter that goes into it each month, but would have no time to devote to the various other departments which help to make the CIRCULAR welcome in the drug stores of the land.

Now, let no reader of the CIRCULAR, be he proprietor or clerk, think for one moment that we are not pleased at receiving his query, and still more pleased when we think our answer will be of service to him and to pharmacists generally. We want to receive queries, not only for the good that may come to pharmacy from a discussion of the points which these queries raise, but for the selfish reason that they make our paper of more value to our readers and consequently to ourselves. The man who writes on a postal card and demands an answer by return mail is a little bit worse than the modest fellow who prefaces his request for help by the statement that he has been a subscriber seventeen years and has never "bothered" us before, when it is our delight to be "bothered," but each one would make us say things if it were not for the fact that long tenure of our position and the cultivation of the patience and humility that goes with it had taught us how vain and profitless it is for one to allow his baser feelings to rise high enough to sway his actions.

To each "dear reader" of the CIRCULAR we would say: Send in your queries and we will answer them if we can, when we can; but if you do not receive your reply as quickly as you wish or think you ought, please try to give us credit for honorable intentions, and rest assured that there is some good reason for the delay.

Or, to put the whole matter of answering queries by letter in a nutshell, we may quote from another editorial article which appeared in this journal: "The CIRCULAR is a periodical for the many, not a correspondence school for the few."

Artificial Oil of Sassafras.—A. S., Pennsylvania.—The better grade of artificial, or synthetic, oil of sassafras is safrol; but more commonly the "artificial" oil is oil of camphor fractionated to simulate oil of sassafras in specific gravity and containing only about two-thirds as much safrol as does the natural oil. Oil of camphor is a by-product in the manufacture of camphor and rather inexpensive. It contains all the constituents of oil of sassafras, although in different proportions.

Dental Modeling Wax.—M. L., New York.—Without attempting to have a chemical analysis made of the sample you send—the general interest in the matter hardly justifying that expense—we would say that it appears to us to consist of a mixture of beeswax and paraffin, tinted, with some red anilin dye perhaps.

Phenol Gangrene.—Thomas Latham, New York, favors us with the following observations on the danger of applying phenol solutions to cuts and bruises:

Referring to the article, "Another Case of Phenol Gangrene," on page 410 of your August number, I would say that the case mentioned must have happened by an infringement of the New York board of health ordinance, now several years in force, prohibiting the sale of phenol in solution stronger than 5 per cent.

In the hands of pharmacists the phenol liquefactum of the Pharmacopœia may be further diluted to any desired strength, but in the hands of laymen, even those who have had a course in "first aid," it is a dangerous substance. Its further dilution, especially in cold weather, is a matter of difficulty when water drawn from a hydrant is 50° or lower. The phenol is probably dropped into a convenient open vessel and the proportion guessed at. A bandage is saturated and doubtless takes up some of the oil-like drops of the 90 per cent. phenol with damaging results to the wound. Still phenol liquefactum 5 per cent. will continue to be a popular article, and the popular opinion that a few drops in some water is good for cuts and wounds will hold.

I had hardly finished reading your article when I dispensed, on a physician's prescription, 200 c.c. (mils) of a 1 in 60 solution for a thumb from which a large needle had been extracted, so you see the medical profession still thinks well of phenol.

Thirty-five years ago I applied it, 90 per cent., to the suppurated wound of an ingrowing big toe nail several times. It gave instant relief to the burning and pain, and rapidly induced healing. According to present opinion I should have lost my toe, but it is still in good working order, doing its fifteen hours per day.

Perhaps the chief reason for the extensive use of the saponated cresols is their ready solubility in water, and because the presence of the soap has taken from them their "bite."

I do not find that the manufacturers of "first aid cabinets" include phenol in their contents, nor do jobbers offer phenol liquefactum, so the guilty ones must be retail pharmacists outside of Greater New York, where, as before said, the sale of phenol, of greater strength than 5 per cent. is prohibited. Surely no one in the city would break such a wise and beneficent ordinance.

The tendency to gangrene appears to vary greatly in different individuals. What would be a dangerous strength in one case would be safe in another. Many of the finger injuries are crushings where the natural structure of the flesh is destroyed. But this is a surgical not a pharmaceutical subject.

The fact that most of us breathe or eat the germs of tuberculosis, typhoid fever and other dangerous diseases every now and then, and only a comparatively few of us develop the corresponding trouble, does not prove that contact with these germs is beneficial or even harmless. In the CIRCULAR for August, to which Mr. Latham refers, two cases of gangrene following the application of phenol dressings are reported; in the issue for March, 1908, page 115, five cases; and in the July number, 1907, page 468, nine. It should be understood that the CIRCULAR does not make a specialty of collecting and publishing data on this subject, and does not pretend that its references are anything like complete, yet a hurried glance through its files for the past score of years, shows that it has reported cases of gangrene following the application of phenol, as here indicated; 1892, November, page 251, a general warning, with no specific case given in detail; 1895, August, page 182, two cases; 1900, November, page 217, eighteen cases mentioned; 1902, one case, in which the amputation of a leg followed the accidental spilling of the solution on the victim's foot; 1904, September, page 200, Dr. Harrington refers to records of 132 cases; November, page 247, one case; 1905, April, page 115, one

case; November, page 390, one case; December, page 431, one case. All these are in addition to the more recent ones above mentioned, and in many of them the solution used was about 5 per cent., and in some of them it was as low as 1 or 2 per cent. It would seem from this that the New York city ordinance restricting phenol sales to solutions of not over 5 per cent. does not have the effect ascribed to it by our correspondent.

We thank Mr. Latham for his contribution to the subject, for although, as he says, this is a surgical rather than a pharmaceutical subject, still druggists have an interest in it, especially as one of their number in this city was taken to court some years ago to answer a suit for damages growing out of the loss of a thumb attributed to a phenol dressing applied by a clerk in his store.

Corn Collodion.—B. C. M., Indiana.—In the National Formulary may be seen a formula for a corn collodion containing the very ingredients you name—Indian hemp, salicylic acid and collodion.

Under the federal food and drugs act (which applies only to interstate traffic and sales in certain territory under the jurisdiction of the United States government but not in any sovereign State), a drug is misbranded if the label on the package in which it is put up fails to bear a statement of the quantity or proportion of any alcohol, morphine, opium, cocaine, heroine, alpha- or beta-eucaine, chloroform, cannabis indica, chloral hydrate or acetanilide, or any derivative or preparation of any such substances contained therein. While the federal law does not apply to sales made entirely within a State, it should be borne in mind that most of the States have food and drugs acts of their own. The Indiana law contains a clause similar to the one just quoted from the federal act.

Viavi Cerate.—R. C. New York.—In the *California State Journal of Medicine* for April, 1907, is a long article devoted to exposing the humbuggery of the viavi people. An abstract of this article appears in the *Journal of the American Medical Association* for April 27th, 1907; and more on the subject appears in the issue for June 15th following. This abstract and additional matter has been published in book form, together with similar exposures of scores of other medical fakes in a little volume of about 300 pages. This book will be found extremely interesting to druggists, and as it will be sent post-paid on receipt of 10 cents in stamps by the American Medical Association, 535 Dearborn avenue, Chicago, there is no reason why a copy should not be in every drug store in the land.

In this exposure, reference is made to a viavi preparation consisting of cacao butter and extract of hydrastis.

Cuticura Resolvent.—C. S., Mississippi.—We do not know what the composition of this preparation is. Many years ago there went the rounds an alleged formula which was as follows:

Aloes	1 dram.
Rhubarb	1 dram.
Potassium iodide.....	36 grains.
Whiskey	1 pint.

Macerate over night and filter.

Mercolized Wax.—J. W. L., Pennsylvania.—This alleged aid to beauty has been examined by F. W. Nitardy, of the Colorado food and drugs bureau, who reports that he found in it ammoniated mercury, zinc oxide, and something having the appearance of a combination of white wax and a mineral oil. He also discovered a trace of perfume.

It seems to be another one of the various fakes whose sale in drug stores does so much to prevent pharmacists from receiving the recognition to which practitioners of a branch of the healing art are entitled.

Liquid Peptonized Foods.—S. C., Michigan.—An article on this subject, embracing many formulas, appears in the CIRCULAR for April, page 197.

Oxygenated Tooth Powder.—B. L., England.—A note on this subject, with a formula, appears in the CIRCULAR for July, page 354.

Anonymous Queries.—"Douche Powder," New York.—Your attention is called to the standing notice at the head of this department in which it is stated that queries, to be answered by us, must be accompanied by the name and address of the writer. Not only do we keep that notice standing, but every once in a while we print a note similar to this one, calling special attention to it; and now and then we give our reasons for having made such a rule.

Appeals to Readers.—Information is sought concerning the articles listed below. We ask for such help as our readers can give:

Saratoga Ointment.—F. R. S., Iowa.

Universal Balm.—G. F. D., Massachusetts.

Camphorated Rhubarb.—C. H. J., Maryland.

Inventory Sheets for Druggists.—G. A. M., New Jersey.

Veterinary Spavin Liniment.

The following is from a German source:

Tincture of iodine.....	4 parts.
Tincture of myrrh.....	4 parts.
Oil of turpentine.....	6 parts.
Tincture of cantharides.....	2 parts.
Alcohol	4 parts.

Make a mixture.

Solder for Platinum.

Fine silver.....	125.0 parts.
Brass	12.5 parts.
Alloy copper.....	12.5 parts.

Fuse together the brass, the copper and 50 parts of silver. When this alloy has been made and cooled, melt it with the rest of the silver.

No, Isabel, invisible face powder is not one intended to make the face invisible; although from the appearance of some women it would seem that they really use face powder for that purpose.

B wins. The poison was to be used on gophers, and not, as A contended, on golfers.

Some British Formulas.

In the third report of the committee of reference in pharmacy, made to the pharmacopœia committee of the (British) general medical council, were a number of suggestions for changes in the formulas of the British Pharmacopœia. These were given in a recent issue of the *Pharmaceutical Journal and Pharmacist*, of London, from which the following are reprinted:

Liquor Epispasticus.

Blistering Liquid.

Cantharidin	1 part.
Castor oil.....	6 parts.
Rosin	3 parts.
Acetic ether (or acetone).....	240 parts.

Make a solution.

Mistura Olei Ricini.

Castor Oil Mixture.

Castor oil.....	75 parts.
Powdered acacia.....	20 parts.
Orangeflower water.....	30 parts.
Cinnamon water....	enough to make 200 parts.

Triturate the oil with the acacia in a dry mortar; add, in one portion, 40 parts of cinnamon water, and continue the trituration until the oil is completely emulsified; then add the orangeflower water and the rest of the cinnamon water.

Suppositoria Glycerini.

Glycerin Suppositories.

Gelatin	14 parts.
Glycerin (by weight).....	70 parts.
Distilled water.....	enough.

Soak the gelatin in distilled water until it is thoroughly softened; add the glycerin; make a solution on a water-bath; and evaporate until the mass weighs 100 parts.

Dangers of Poppy-Head Soothing Drafts.

A circular has been issued by the French minister of agriculture, addressed to the local authorities throughout the country, advising them that poppy-heads have been added to the official schedule of poisons. In part the circular reads (*Chem. and Drug.*): "There is no doubt that the practice [existing in certain parts of France] of administering poppy-head decoction to infants as soothing syrup, without a medical prescription, presents serious dangers from the point of view of public health; that it is well proved to have already caused many deaths, and to be one of the causes of the high rate of infantile mortality in northern France."

Honey and Glycerin Jelly.

Soft soap.....	1 ounce.
Honey	3 ounces.
Glycerin	4 ounces.
Olive oil.....	20 ounces.
Almond oil.....	20 ounces.
Oil of rose.....	40 minims.
Distilled water.....	4 drams.

Mix the water, the glycerin and the honey, and dissolve the soap in this mixture. Mix the oils and add them gradually in an uninterrupted stream to the first mixture, triturating vigorously the while.

Alabama Board Questions.

Herewith is reprinted a set of questions used by the Alabama Board of Pharmacy at an examination held May 15th. Another set of questions used by this board appears in the CIRCULAR for June, 1910, page 286.

In reprinting board questions we endeavor to follow closely the nomenclature, spelling, punctuation and capitalization of the originals, our object being to give to our readers, just as nearly as practicable, the questions as they were presented to the candidate.

Pharmacy.

L. C. Lewis, Examiner.

1. Define heat. What three degrees of heat for thermometers are used? Which is used in the U. S. P.? What is the standard temperature for taking specific gravity? What is gentle heat?
2. What is a water bath? How may the boiling point of a liquid be obtained? Name and explain the different degrees of fineness of powders as designated in the U. S. P.? What is meant by pulverization by intervention?
3. What is meant by circulatory solution? Name the principal solvents used in pharmacy according to their importance? Name five official tinctures with the percentage of drug which are made by maceration.
4. Why is maceration preferable to percolation in these cases? Describe the official process of percolation.
5. Name five U. S. P. tinctures and state per cent of drug whose menstruum is a mixture of alcohol, glycerine and water.
6. What is the difference between a sediment and a precipitate? Name some terms employed to define the peculiar form which precipitates assume. How are heavy precipitates formed? What advantage have they over light ones?
7. Give formula *Liquor Ferri et Ammonii Acetatis*? How does it differ from the U. S. P. 1890? What precautions are necessary in its manufacture to insure a clear product? Give common name.
8. What advantages are Oleates supposed to have over the ointments? Name three Oleates with percentage of active drug. How do waxes differ from true fats? In what respects do Oleoresins differ from Fluid extracts?
9. How do the ointments of Phenol and sulphur of the U. S. P. 1900 differ in strength from those of 1890? Give formula of *Syrupus Scillae* and *Syrupus Scillae Compositus*.
10. Give formula of: *Pulvis Effervescens Compositus*; *Pulvis Acetanilidi Compositus*; *Pulvis Cretae Compositus*. Name the ingredients in *Extractum Colocynthis Compositum*? Into what official preparations does it enter?

Chemistry.

Sam A. Williams, Examiner.

1. Define a chemical change. (b) How does chemical affinity differ from other forces? (c) Define atomic and molecular weight. (c) Define valence.
2. Define the term reagent. (b) What is qualitative analysis? (c) Quantitative analysis? (d) What is meant by allotropic modification? Give example.
3. What is an element? A metal? Give the names, chemical and physical properties of the elements composing the group known as the halogens.
4. How does chlorine act as a bleaching agent? Give tests for hydro-chloric acid and chlorides. Mention test by which iodine and iodides may be recognized.
5. Mention some metals found in nature in uncombined state. Some as oxides, sulphides and carbonates.
6. Give symbol, atomic weight and valences of five elements.
7. State chemical name and composition of common salt. Glauber salt. How can commercial bi-carbonate soda be purified? What is calcined magnesia? How is Epsom Salts made? Give official name.
8. Mention two processes for making zinc oxide. What is an alloy? What is sub-nitrate and sub-carbonate of Bismuth? How made from metallic Bismuth?
9. Name tests by which the organic nature of a compound may be determined. By what test may the pres-

ence of hydrogen be known? How does heat act upon organic compounds? What are the chief groups of organic compounds?

10. Mention two hydro-carbons. Two alcohols. Two aldehydes. Give their physical properties.

Materia Medica.

W. E. Bingham, Examiner.

1. (a) Give official name of aconite. (b) What part of plant is used in Medicine? (c) What effect on tongue when tasted? (d) Name official preparations. (e) Dose of the Tincture. (f) Has the strength of the Tincture been increased or decreased in the last pharmacopœia?
2. Name four official preparations of metallic mercury and give the percentage of mercury in each.
3. (a) Describe ointments, plasters, cerates. (b) How do they differ? (c) Name two official preparations under each head.
4. (a) Name five compounds containing oxygen. (b) What is the difference between oxygen and ozone? (c) What is oxidation? (d) What is hydrogen?
5. (a) What plant yields hyosciamus? (b) Give habitat and natural order. (c) What part of the plant constitutes the official drug? (d) What percentage of alkaloid should it contain? What alkaloid is obtained from it? Name the principle salts obtained from the alkaloid.
6. (a) What is the official name of Benzoin? (b) Botanical origin and constituents? (c) Where and how obtained? (d) In what is it soluble? (e) Medicinal properties?
7. (a) What is the common name of *Oleum Tigllii*? (b) Botanical origin? (c) Is it a fixed or volatile oil? (d) Physiological action and medicinal properties?
8. (a) Give common name of *Terebinthina*. (b) Is it a fixed or volatile oil? (c) How obtained? (d) Name the official preparations. (e) Physiological action. (f) What is *Terebene* and *Terpin Hydrate*?
9. (a) Give common name of *Physostigma*. (b) Part used and natural order? (c) What two alkaloids does it contain? (d) Official preparations?
10. Give official names of the following: (a) *Gray Powder*. (b) *Spirits mindereris*. (c) *Bashams mixture*. (d) *Meadow Saffron*. (e) *Cochineal*. (f) *Black Wash*. (g) *Cotton*. (h) *Hops*. (i) *Honey*. (j) *Black Pepper*. (k) *Cascara Sagrada*. (l) *Lard*.

Toxicology, Posology and Pharmaceutical Arithmetic.

W. P. Thomason, Examiner.

1. Define Toxicology, Antagonist, Corrosive, Narcotic.
2. What are the symptoms of, and what emergency treatment should be employed for poisoning by Oxalic Acid? (a) Should the stomach tube be employed and should alkaline carbonates or bicarbonates be employed? Explain.
3. Name three unrelated mineral emetics, with dose of each. (a) Name three unrelated poisonous alkaloids, with dose of each. (b) Name five poisonous tinctures, with dose of each.
4. Name the best physiological antidotes, with their antidotal doses, and your method of administration in poisoning by Aconitine; by Morphine; by Strychnine.
5. What are the poisons in Schedule "A" of Alabama Pharmacy law, and what is required of the Pharmacist when selling them?
6. What is the dose of tincture of Aconite? Compound Tincture Catechu; Tincture Colchicum seed; Tincture of Ipecac; and Opium. Chloral Hydrate. Extract *Nux Vomica*.
7. How many grains of Mercuric Chloride are required to make two fluid ounces of a solution, one drachm of which diluted to one half pint would make a 1 grain to 2000 M solution?
8. If two lots of Cinchona, one consisting of 500 lbs. contains an average of 3 3-10 per cent. of Quinine, the second consisting of 300 lbs. containing 2 1-10 per cent. of Quinine, what is the Quinine strength of the product obtained by mixing the two lots?
9. How would you obtain the per cent. of Alcohol by volume in Squibbs Diarrhoea Mixture, formula of which is as follows?

Tr. Opium	6 fluid drachms
Tr. Capsicum	3 fluid drachms
Spir. Camphor	6 fluid drachms
Chloroform	2½ fluid drachms
Alcohol Q. S.	4 ounces

Show how you would estimate the Opium and Chloroform contents per fluid ounce of this preparation.

10. Give the units of Measure, capacity and weight in the metric system, and their equivalents in ordinary measures.

Notices of Books Received.

ORGANIC CHEMISTRY FOR THE LABORATORY. By W. A. Noyes, Ph. D. Second Edition Revised and Enlarged. Octavo; cloth; xi + 291 pages, illustrated. \$2. Easton, Pa.: The Chemical Publishing Company. 1911.

This second edition of Noyes' Organic Chemistry contains new chapters on the analysis of organic compounds, on ethers, hydroxy and ketonic acids, general operations, and carbohydrates. The text has been rearranged and a number of the tables have been recalculated. One hundred and thirty-one subjects are covered in the contents.

In preparing this work the author's stated purpose has been to afford a means toward personal experience, on the part of the beginner, with the basic processes of organic chemistry. He has also endeavored to aid the advanced student in obtaining an intelligent grasp on the voluminous handbooks. In both aims he has been quite successful.

A CONCISE HISTORY OF CHEMISTRY. By T. P. Hilditch, B. Sc., A. I. C. Duodecimo; cloth; ix + 263 pages, sixteen diagrams. \$1.25. New York: D. Van Nostrand Company. 1911.

As a brief outline of the historical development of chemistry this book will appeal to the student, teacher, and author interested in any of the many phases of chemical practice. Arising in the dark humble cell of the alchemist, nurtured by peasant, priest, and prince, to wield an influence in practically every walk of present-day life, chemistry has a most interesting history. From its earliest days it has been closely allied to pharmacy, and apothecaries and pharmacists loom large in the records of its growth.

And so it is that pharmacists will be among those most deeply interested in the little synoptic history titled as above.

PROCEEDINGS OF THE NEW JERSEY PHARMACEUTICAL ASSOCIATION, at the Forty-first Annual Meeting held at Asbury Park, June 14th to 16th, 1911.

PROCEEDINGS OF THE TEXAS PHARMACEUTICAL ASSOCIATION at the Thirty-second Annual Meeting Held at Dallas, June 20th to 22d, 1911.

Learning to Think.

Speaking of examination questions that befuddle pharmacy graduates, THE DRUGGISTS CIRCULAR quotes a question which stumped one proud young Ph. G. It was, "Is there any difference between the weight of a pound of cotton and a pound of lead?" From his failure a moral is drawn which reflects severely on the colleges who send out this sort of material, presumably ready to compound prescriptions.

For our part, we can't imagine how a chap of this sort would even get into any sort of a college of pharmacy—to say nothing of getting out of it whole.—*New Idea.*

Correspondence.

Short, timely articles upon subjects of interest to pharmacists are solicited for this department. In order to be in time for publication in the issue of a given month, they should be in the editor's hands on the fifteenth day of the month previous. Anonymous communications will not be published; but if the author expresses a wish to have his name withheld, this wish will be scrupulously regarded and his letter considered confidential.

Advantages of Sunday Closing.

Near-the-River, August 28th, 1911.

To the Editor of THE DRUGGISTS CIRCULAR:

Herewith is a contribution which treats of a subject that is more and more becoming of intense interest to every pharmacist. I have endeavored to make the treatment both original and interesting. From editorials in your paper I am sure you are in favor of Sunday closing, as I indicate it in my article, and I trust that you will publish this appeal.

DRUG CLERK.

[The "appeal" follows.—Editor THE DRUGGISTS CIRCULAR.]

The Drug Clerk on the Witness Stand.

Q. What is your business?

A. I am a retail drug clerk.

Q. Are you a licensed clerk?

A. I am.

Q. Tell us how you acquired that license.

A. I acquired the license by passing an examination before the board of pharmacy in the subjects of pharmacy, chemistry, materia medica and toxicology. Before I was permitted to take that examination I had to sign a sworn statement that I had been employed in a retail drug store for at least four years, and that I was a graduate of a standard college of pharmacy. All States do not require that the applicant be a college graduate.

Q. What are your duties?

A. I fill physicians' prescriptions, prepare pharmaceuticals of all descriptions, sell drugs and medicines, poisons and non-poisons, wash cases and windows, dust, sweep—in fact, do all kinds of work.

Q. What are your hours of work?

A. They vary. My longest day is from 7:30 A. M. to 10:30 P. M. My shortest is the day I am "off" for the afternoon.

Q. Do you work Sundays?

A. Every other Sunday from 8 A. M. to 10 P. M.

Q. What is your salary?

A. Eighteen dollars per week.

Q. Is that the average salary?

A. Above the average in small stores. There are many clerks who can be hired to do the same work for from ten to fifteen dollars.

Q. What is a qualified assistant?

A. He is one licensed after examination by the board of pharmacy to fill prescriptions and sell poisons, but not legally qualified to take charge of or operate a drug store.

Q. What salary do they receive?

A. They can be had for from seven to eight dollars per week.

Q. Why are drug stores open so late at night?

A. Theoretically to attend to emergencies; practically to make money.

Q. Why are drug stores open on Sunday?

A. For the same reason that they are open so late on week days.

Q. Do you sell anything but medicine and sick-room necessities on Sunday?

A. We sell anything we have in the store that is sold on week days.

Q. Name a few items.

A. We sell candy, tooth brushes, soap, combs, brushes, soda water, cigars, etc., etc.

Q. If any other merchant opened his store Sunday for the sale of soap, combs, tooth brushes, etc., would not such merchant be considered a violator of the Sunday ordinance?

A. I believe he would.

Q. Is there any reason for a druggist to be permitted to

violate a law which another merchant would be arrested for violating?

A. I can see none.

Q. If the druggists are to be permitted to have a "wide-open" Sunday business cannot all merchants claim an equal right?

A. It would seem so.

Q. Is it true that it is absolutely necessary to the health and happiness of the nation for the drug store to be open all day Sunday, that it may minister to the needs of the sick?

A. To say so would be to make a very bold claim.

Q. Can it be proven in any way that it would be a tremendous hardship to the people at large were the druggist to obey the Fourth Commandment?

A. It can not.

Q. You do not keep your store open all night?

A. We do not.

Q. Do you answer night calls?

A. We do.

Q. How many have you answered in the last two years?

A. Six—in a town of 100,000.

Q. Are there other stores nearby that have night clerks?

A. The nearest is two miles away.

Q. You have told me that your store is closed from 10 P. M. to 7:30 A. M., a period of nine and one-half hours out of the twenty-four, and that for a period of two years you have had but six emergency calls, with no other druggist nearby having a night clerk. How do you account for that?

A. We do not advertise that we have a night clerk. The people do not know they would get in. Necessity being the mother of invention they get along with what they have in the house and, if necessary, they summon the doctor, and what they usually need him for is not medicine, but advice. The doctor usually carries his hypodermics, etc., with him and these he uses if necessary. Again, the people are becoming more and more educated. Medicine cabinets are more general in the homes and ignorance of emergency remedies is no longer excusable. So long as the drug store is open the people will come; but when it is closed they wait until it reopens.

Q. If the drug store is closed nine and one-half hours out of every twenty-four, do you not think it a practical plan to close the major part of Sunday and perhaps, ultimately, the entire day?

A. Emphatically so.

Q. You have said that the Sunday drug business varies but little from the week-day business. I ask you now why should not the druggists be as observant of the Sunday selling law as other merchants? Ought they not, as professional men, to consider it a matter of pride to set the example for civic righteousness?

A. In answer to the first part of your question I should say that there is no excuse for the retail druggist not being as observant of the law as any other merchant. To the second, that they ought to consider it a matter of pride from the professional standpoint to set an example for civic righteousness. The fact that, thoughtlessly perhaps, the church people form the bulk of the Sunday trade in toilet accessories, etc., is no excuse for the druggist to sell them.

Q. What benefits do you think would accrue to the retail druggists by the adoption of the Sunday-closing plan? But first tell us what the Sunday-closing plan is.

A. The Sunday-closing plan calls for a closed store on Sunday with the exception of about four hours, when the doors will open for the filling of necessary prescriptions and the sale of sick-room necessities. The benefits will be these, it is confidently expected. (1) An immediate raising of the status of the pharmacists and the pharmaceutical business. (2) An accession to the business of good men who will be drawn to it by love of professional work and because of a scientific bent of mind, but who before kept out because of the Sunday work. (3) The clerks will become better workers and with the accession of good material the wages will rise. (4) The week day business will increase because the people will be more careful to see that they do not "run out" of their drug store needs. (5) The adoption of shorter hours on Sunday will ultimately mean the adoption of shorter hours on week days. (6) The value of shorter hours to the worker is just beginning to be realized. Men who toil unceasingly miss much of the joy of life; their minds become stupid and they live in a rut. The druggists who brag that they

have not had a Sunday "off" in twenty years are an example in point. The druggists are denied the home life—the life most worth while. The benefits that they would gain from this one thing alone are immeasurable. The druggist who has been compelled to leave his wife at home alone, night after night and every other Sunday, with only her thoughts and her work to help her while away the long tedious hours, can understand what it means to have shorter hours and Sunday rest. The long hours and the Sunday work are a curse to the retail drug store of to-day.

Q. Let me ask you a final question: How would you go about putting your plan for Sunday closing into practice if you had a store of your own?

A. I should follow in general the plan adopted by many druggists throughout the United States. I should first inform the people of my plan some time ahead. This I should do by means of circulars enclosed with other advertising matter and mailed in company with bills, or distributed in the store. On that circular I should state just why I believed in Sunday closing and what I proposed to do. I should also inform the physicians, and advertise the fact in the daily papers. I should put cards in my store windows stating the hours my business would be open, and I should respectfully ask the co-operation of my patrons. Having thus put my shoulder to the wheel I should go ahead.

Q. A thought has here suggested itself to me: Suppose there were no financial profit in keeping open on Sunday—that every Sunday that the store was open meant a loss in dollars and cents to the proprietors—do you think there would be much trouble in having all the stores closed on Sunday?

A. I believe there are many sincere and good men doing business on Sunday who believe business could not be conducted in any other way. Many of them have families dependent upon them and of two evils they think it would be worse to let their families want than to close Sundays. They would like to close and would if all the rest could be persuaded to. If the big stores, who can well afford to, will take the initiative, the little stores will be only too glad to fall into line. Every druggist who really believes in the proposition ought to help and encourage those who are working so hard for their interests. "No success is gained without great labor." It is a tremendously big task to win over 50,000 retail druggists to a proposition contrary to the general customs of the drug business. The difficulty of its accomplishment makes the plan all the more worth fighting for. If the conservative, old-school druggists who believe in letting what they call "well enough" alone, will just not antagonize and really make an effort to see the benefits they would receive, it would help a great deal. The long hours and Sunday work of the drug business are not at all in harmony with the twentieth century, and until we modernize our business we cannot have a healthy growth.

[That a goodly proportion of the 50,000 retail druggists do not keep open all day Sunday may be learned by those who will refer to that portion of the report of the recent meeting of the American Pharmaceutical Association appearing in last month's CIRCULAR, page 504.—Editor THE DRUGGISTS CIRCULAR.]

Resting on the Seventh Day.

Scranton, Pa., September 19th, 1911.

To the Editor of THE DRUGGISTS CIRCULAR:

On my return from the N. A. R. D. convention at Niagara Falls, where the excellent and encouraging report of the committee on fraternal relations regarding the Sunday rest movement of the druggists by the druggists, for the druggists, was so enthusiastically received, I was glad to read in THE DRUGGISTS CIRCULAR for September (page 486) the good and timely letter from the New Jersey pharmacist signed "Sunday Rest," on this important subject. The question is so clearly and convincingly presented therein that I wish every druggist would read it.

The rapid growth of the Sunday rest and shorter hours movement since the St. Louis convention of

1904, when the resolution "fraternally requesting druggists to limit their Sunday business to work of necessity and mercy," was first adopted, is certainly very gratifying, and I am sure with the great assistance promised by the ladies of the W. O. N. A. R. D., through Mrs. President Storer, of Chicago, and Mrs. Secretary Lee, of Philadelphia, the outlook for better Sunday conditions will rapidly grow stronger and stronger for the benefit alike of all concerned—both proprietors and clerks.

JULIUS G. BONE.

"Gettery" and "Forgettery" of College Students.

Pittsburgh, Pa., September 6th, 1911.

To the Editor of THE DRUGGISTS CIRCULAR:

I have read in the CIRCULAR for August, page 425, what Prof. Remington has to say about one's "forgettery." There are some things which we must prevent from falling into that fatal receptacle. For example, a competent pharmacist must not forget that 25° C. and 25° F. are not synonymous. He may forget the rules by which the degrees are transposed, but the fundamental principle that there is a substantial difference must be remembered.

And I want to say that when a graduate in pharmacy has a prescription for zinc sulphate and lead acetate, of each, three grains, water two ounces, and he triturates the chemicals in a mortar, adding the water, and then filters the mixture, I am induced to observe that his "gettery" has not been properly stocked up.

And if he tells me that if one grain of a potent drug is triturated with twelve grains of milk sugar, one grain of the mixture will contain one-twelfth of a grain of the potent drug, then I will say that such graduate has an improper control of his "thinkery," and that he is not a proper person to be placed in a position which entitles him to guide the coming generation of pharmacists, for I am a lover of pharmaceutical progress and college education. I maintain that this class of graduates should remain on the waiting list until their "gettery" is properly stocked, and the storage battery of their "thinkery" is properly charged, and the wires from their "thinkery" to their "gettery" are properly insulated.

I am told that some colleges know very well when they graduate "lame ducks," and that they pass them along with the observation that the responsibility will rest on the pharmacy boards. Now pharmacy boards can afford to take the responsibility, but such colleges should not complain if the boards fail to place their stamp of approval on these weak brethren.

At the present time we need first-class pharmacists or none. Second-class ones, it is claimed, are good enough for rural districts. This I deny, humanity living in rural districts being entitled to as competent service as is that living in urban districts.

Some schools of pharmacy have four grades of graduates, meritorious, very satisfactory, satisfactory, and sufficient. The latter two give pharmacy boards much trouble, and a chronicle of their work makes unpleasant reading for their teachers. They should not be graduated at all by colleges which desire to remain in the "reputable" class, and if pharmacy is to maintain a proper recognition of competency.

LOUIS EMANUEL.

Dispensing Physicians.

Jersey City, N. J., September 12th, 1911.

To the Editor of THE DRUGGISTS CIRCULAR:

Kindly allow me to say a few words in regard to Dr. Hommell's article in your September issue, page 489.

We all agree that higher education and a longer course in the colleges would be a great blessing to the profession, especially in the State of New Jersey, where not even a two years' college course is required for the board examinations. A higher education would elevate our profession, it would bring us closer to the physicians, and consequently we would gain a great deal scientifically and financially. But still, in all, that does not justify the attitude of some doctors, who under false pretenses of incompetency and ignorance of the pharmacists are doing the dispensing work themselves and rob the druggist of his share of profit.

The average reputable and honest druggist of today, licensed or pharmacy graduate, can be intrusted with the filling of a prescription. Those doctors do not dispense for safety's sake, anyway; they simply consider it as a "side line" to help pay their rent.

Suggestions and criticisms are always welcomed by the druggist, but not from those who ignore him.

S. TAUBE.

Saving Time at Druggists' Meetings.

Chicago, Ill., September 16th, 1911.

To the Editor of THE DRUGGISTS CIRCULAR:

Patrick recommended to do away with the front and rear cars on trains to avoid wrecks, as most wrecks are either front or rear collisions.

I notice you are looking for a remedy to float the time schedule of A. Ph. A. meetings. Do away with the first meeting (welcome) and the last (installation), most of which is time-killing and not productive of anything except hot air, and you would cut out a big piece of bunk and poppycock and gain time for session work.

WILHELM BODEMANN.

Persionin, not Pershionin.

Brooklyn, N. Y., September 14th, 1910.

To the Editor of the THE DRUGGISTS CIRCULAR:

In your excellent report of the Boston A. Ph. A. convention, the best and most complete which I have read so far, you call, on page 515, the coloring principle of cudbear *pershionin*. This, of course, should be corrected to *persionin*, from *persio*, the Latin for cudbear. Just as indigo is so named on account of coming from India, so very likely the name *persio* was given to the red dyestuff because it came from Persia, which country used to be the center of exchange between the Orient and the Occident.

Mr. Alexander Gardner, a retail pharmacist of Brooklyn, deserves special credit for commencing these experiments after my talk on N. F. preparations before the Brooklyn Pharmaceutical Association, in which I mentioned the difference of color in different samples of tincture of cudbear, and consequently in the preparations colored with them.

In our preliminary report at Boston we explained that the cudbear is extracted with acetone (Gardner) or alcohol (Raubenheimer), and the resulting tincture dried to an extract or reduced to a powder.

Which of the two solvents is the better, or which of the two products, extract or powder, is the more soluble, remains to be seen. The object is, not to produce a show-globe color, as your readers may think, but to obtain a uniform cudbear extract, which will tint the preparations uniformly.

I trust some of your subscribers will give this process a trial, as it is especially intended for the use of the retail pharmacists. OTTO RAUBENHEIMER.

Federal Positions Open.

October 25th, the United States civil service commission will examine applicants for vacancies in the position of *assistant chemist* in the bureau of chemistry, department of agriculture. These positions are salaried at \$1,200 to \$1,600 a year and are open to men or women more than twenty years old. Applicants must have had an educational training equivalent to the degree of bachelor of science. The examination will consist of tests in theoretical and applied chemistry (organic, physical, and analytical), and translation from French or German. Education, training, experience and fitness will count to 40 per cent. of the rating.

An examination is announced for October 25th and 26th for the position of *junior chemist qualified in explosives*, in the bureau of mines, at a salary of from \$1,020 to \$1,200 a year. The position is open to men only, who are not yet forty years old, and who have had an educational training equivalent to a four-years' technical course, and also had some experience in the analysis or manufacture of explosives. Applicants will be examined in mineralogy, general physics and chemistry, chemistry of explosives, and translation from technical French or German. Each will be required to submit a thesis on a subject relating to explosives.

Also on October 25th and 26th, the commission will examine applicants for vacancies in the position of *laboratory assistant in chemistry* in the bureau of standards, department of commerce and labor. The salary attached to this position ranges from \$900 to \$1,200 a year. Applicants are required to be between the ages of twenty and thirty-five years, and to pass an examination in general physics and chemistry. They must have had an educational training equivalent to graduation from a college or technical school.

Application form 1312 is to be used for any of the foregoing examinations.

What Is "Insect Powder"?

In insecticide decision No. 1, issued August 26th, under the federal insecticide law, the term "insect powder," when used without qualification is defined as "an insecticide made from the powdered flower heads of the following species of chrysanthemum: *Chrysanthemum (pyrethrum) cinerariæfolium* (Trev.); *chrysanthemum (pyrethrum) roseum* (Web. and Mohr); *chrysanthemum marshallii* (Aschers) (*pyrethrum carneum* [M. B.]). Mixtures of powdered flowers and stems of *pyrethrum* may be called "insect powders" if the label bears also a definite statement of the nature of the mixture.

The terms "pyrethrum" and "pyrethrum powder" are held to be synonymous with "insect powder."

Work Against Soothing Syrups.

The Milk and Baby Hygiene Association of Boston is endeavoring to educate mothers to an understanding of the pernicious nature and dangerous possibilities of so-called soothing syrups. To this end it has prepared, from a recent report by Dr. L. F. Kebler, chief of the division of drugs of the federal bureau of chemistry, a poster explaining these dangers and enumerating the commonest mixtures of this sort upon the market.

Dr. James H. Beal, of Scio, Ohio, on September 23d, celebrated the completion of his first half-century on this sphere. The post office at his town was almost "swamped" by the congratulatory messages sent him on that occasion by his friends in all parts of the country. Dr. Beal has been president of the American Pharmaceutical Association and is now its secretary.

President Taft's Decision in the Wiley-Rusby Case.

On September 15th, 1911, the following letter from President Taft, at Beverly, to Secretary of Agriculture Wilson, at Washington, was made public:

I return herewith the papers which you have submitted to me in the matter of the report of the committee on personnel of the department of agriculture, in which, after summarizing the evidence adduced before them, they recommend that Dr. H. H. Rusby, pharmacognocist in the bureau of chemistry, be dismissed from the service; that Dr. L. F. Kebler, chief of the drug laboratory in the bureau of chemistry, be reduced from his present position and that Dr. H. W. Wiley, chief of the bureau of chemistry, and Dr. W. D. Bigelow, assistant chief of the bureau, be given an opportunity to resign from the positions which they now hold in the bureau of chemistry, on account of irregularities in the appointment of Dr. H. H. Rusby.

The facts shown by the papers stated shortly are as follows:

Dr. Rusby lived in New York and was employed as a scientific expert in the bureau of chemistry to examine importations of drugs, under an agreement by which he received \$20 a day for laboratory work and \$50 a day for attendance in court. On May 24th, 1909, the attorney-general advised the secretary of agriculture that, under the act of March 4th, 1907 (34 Stat. 1280), no classified scientific investigator should receive a salary to exceed \$9 a day. On May 29th, 1909, an order was issued putting him on the roll at a salary of \$9 a day when actually employed. Dr. Rusby objected to this and applied to Dr. Kebler, chief of the drug laboratory, to secure a different arrangement. The matter seems to have been held in abeyance for some time.

Finally, as a result of the conference between Dr. Kebler, Dr. Bigelow and Dr. Wiley, with respect to the request of Dr. Rusby for an increased compensation, Dr. Wiley said he would submit to you, for your approval, an appointment of Dr. Rusby at a salary at the rate of \$2,000 per annum on the miscellaneous roll. Dr. Bigelow then wrote to Dr. Rusby under date of January 21st, 1910, as follows:

"Kebler and I took the matter up with Dr. Wiley to-day and he said he would approve it if we had on record an understanding with you so that we could not be held responsible for your receiving an annual salary and not devoting your whole time to the bureau. I told him that if you were given an appointment at the rate of \$170 a month you would agree not to receive more than \$20 a day for time actually employed. By that I mean the usual official day of seven and one-half hours. This would be equivalent to eight and one-half days a month on the average. I told him that if it happened that your work for the department amounted on the average to less time than that you would ask for leave of absence for sufficient time to bring it to that basis."

Dr. Rusby answered this letter and questioned what was meant by it. He said he did not understand Bigelow's letter clearly and supposed that if he did not earn the entire salary he would not expect to receive any more than was earned.

Meantime, on May 6th, Dr. Wiley submitted to you an appointment of Dr. Rusby at a salary at the rate of \$1,600 per annum on the miscellaneous roll. He made the reduction after examining the records and finding the amount of work done by Dr. Rusby during the preceding two years. You approved this appointment.

After the appointment, Dr. Bigelow wrote Dr. Rusby that he thought the present arrangement was better than the former arrangement, when he was receiving \$20 a day for laboratory work and \$50 a day for court work, because, he said, "You are now assured of getting a certain amount each month, irrespective of the time spent, and you can still so plan your work as to interfere with your regular duties to a minimum extent."

This did not satisfy Dr. Rusby, and he sought further information in a letter dated March 3rd, 1911, as follows:

"Kindly recall that on my side the basis of compensation is not less than \$20 per day. At that rate only eighty days' work per year are provided for, and that is not time enough to satisfactorily perform more than the current port work here, leaving no time for examination of interstate samples, especially microscopical examinations or for attendance at court. For every day at court, on the average, one day of preparation is required. The above facts lead to the inquiry, Would not the salary named compel me to either do very much more than eighty days' work per year, or otherwise fail to do the necessary amount of work in a satisfactory manner?"

On March 4th Dr. Kebler wrote to Dr. Rusby, stating among other things the following: "Personally I am of the opinion that your new appointment is much better than the old. Under this appointment you can do as little as one day's work a month and you get your salary. On the other hand, if you work five or ten days your salary would be the same per month. It seems to me that you have the matter largely in your own hands. I am satisfied that if you do not accept the new appointment nothing more can be done, and your services so far as our work is concerned can no longer be utilized materially in the future."

The nub of the charge by the personnel board was that Dr. Wiley, Dr. Kebler, Dr. Bigelow and Dr. Rusby in effect conspired to put on the record a contract for a general employment of Dr. Rusby's services for \$1,600 a year, but actually and secretly made a contract with him, by which he was only to do enough work during the year for the \$1,600 to secure to him a compensation of \$20 a day, and that this was done in deliberate and defiant violation of the law as interpreted by the attorney-general in the opinion already referred to in which he held that congress had limited the compensation of experts to \$9 a day. After you submitted to me the report of the personnel board, I asked the attorney-general to examine it and give me his opinion in respect to the matter, because it concerned the violation of the law as interpreted by him in one of his opinions. He did so and advised me that the rec-

commendations of the personnel board ought to be carried out. In connection with his recommendation he invited attention to a clause in the act of congress approved March 15th, 1898 (30 State L., 316), still in force, that enjoins upon the head of each department the duty of exacting from the employees in that department who are under an annual salary, labor amounting to seven hours a day every day but holidays.

An examination of the records satisfied me that the questions had not been presented to the persons involved in such a way as to enable them to make full defence. They had only been called as witnesses and cross-examined, without a full understanding that they were under trial which might involve their dismissal. Accordingly, I directed you to submit the whole record, together with the opinion of the attorney-general to each one of the persons charged, and invite from him an answer. These answers were filed in due course and are quite full in detail. The answer of Dr. Wiley specifically denies that he ever saw the correspondence between Dr. Kebler and Dr. Rusby, or that he ever consciously entered into an arrangement by which Dr. Rusby was in effect to receive compensation at a rate in excess of that prescribed by the statute as interpreted by the attorney-general. The truth is, it appears from the answers of Dr. Wiley, Dr. Kebler and Dr. Bigelow, that there had been a good many precedents in the department which seemed to justify the employment of Dr. Rusby at an annual salary when it was not expected that his entire time would be taken up.

This was the case with respect to the employment of what was known as the Remsen board. That board was created by order of President Roosevelt for the very important purpose of enabling the secretary of agriculture to have reviewed the decisions of the bureau of chemistry in cases where those decisions involved disputed technical questions and would, if sustained, destroy valuable and profitable business theretofore regarded as lawful. In such cases it was deemed wise not to allow the destruction of what would be otherwise lawful property and business on the decision of only one expert or the head of a bureau. Accordingly, the Remsen board was created of a number of experts, all of whom were known to be engaged in other professional work than that of the reviewing board. Dr. Remsen, the head of the board, occupies an important position in Johns Hopkins University, and that is his principal occupation. Another member, Dr. Russell Chittenden of the Sheffield Scientific School, is dean of that school, and that is his chief vocation. Hence the employment of the Remsen board, at the rate of \$2,000 a year for each member necessarily involved the proposition that such an annual salary might lawfully be paid without requiring labor of seven hours a day from each person so employed. This, the attorney-general in his opinion intimates, is contrary to the statute; but in the agricultural department it was not thought to be the case. Solicitor McCabe, to whom I referred the question of precedents made in the answers, replied that in the practice of the department, the clause in the appropriation act of March 15th, 1898, had been held to have no application to the employment of experts outside of Washington.

It is necessary fully to understand this difference between the attitude of the department toward an employment at an annual salary of this kind and the opinion of the attorney-general in this matter, because if Dr. Wiley and his associates had understood that the \$1,600 annual salary required them to exact from Dr. Rusby seven hours a day for all the work days of the year, then, of course, his employment must have been known by them to be illegal, and under the circumstances to be only a cover for a different contract of employment; but if they understood, as seems to have been the case generally in the agricultural department, that such an employment at an annual salary might be entered into with experts of this kind, and only subject the experts to an obligation to work for the department whenever called upon, with the understanding that they had some other vocation to which their chief attention was given, it clearly reconciles the action of Dr. Wiley with a desire to comply with the law. The recommendation of the attorney-general given to me was upon only part of the evidence, and hence his judgment was different doubtless from what it would have been if he had had the whole record before him, as I have now. It seems fairly clear that Dr. Wiley, after an examination of the records, concluded that the employment of Dr. Rusby at \$9 a day for laboratory work and \$50 a day for court work would amount to \$9,600 a year if the department called on him whenever they needed him, and that it was this arrangement to which you consented.

In Dr. Kebler's anxiety to induce Dr. Rusby to accept the new terms of employment he certainly betrayed a willingness to construe the contract of employment of Dr. Rusby at \$1,600 a year in one way to reconcile it with the law, and in another way to satisfy Dr. Rusby in his wish to secure \$20 a day and I think he ought to be reprimanded for his disingenuous conduct in writing such letters as he did. He said that he did not intend to violate the statute as interpreted by the attorney-general, and indeed that he did not know exactly what the ruling was; but whether he did or not, the language of his letters do not have a commendable tone and suggest a willingness to resort to evasion that calls for official reproof.

In respect to Dr. Rusby, I do not find that he was advised at all as to the legal difficulty, and that he was only seeking for additional compensation which he thought to be adequate. The truth is, the limitations upon bureau chiefs and heads of departments to exact per diem compensation for the employment of experts in such cases as this is a doubtful legislative policy. Here is the pure food act which it is of the highest importance to enforce, and in respect to which the interests opposed to its enforcement are likely to have all the money at their command needed to secure the most effective expert evidence.

The government ought not to be at a disadvantage in this regard, and one can not withhold one's sympathy with an earnest effort by Dr. Wiley to pay proper compensation and secure expert assistance in the enforcement of so important a statute, certainly in the beginning when the questions arising under it are of capital importance to the public. If this were a knowing, wilful, deliberate effort to evade the statute as

construed by the attorney-general, accompanied by a scheme to conceal the evasion and violation, I should think the punishment recommended by the personnel board, and concurred in by the attorney-general, was none too great; but an examination of the whole case satisfies me that a different construction ought to be put upon what was done; that the evidence does not show that Dr. Wiley was a party to the correspondence or the letters upon which the chief charge is founded, and that his action in the matter was only in accord with previous precedents in the department which justified him in doing what he did.

With respect to the other persons charged, I find an overzeal in Dr. Kebler and Dr. Bigelow, which prompted a disingenuous method of squaring Dr. Rusby's desire for what he thought was adequate compensation with the contract which he and Dr. Wiley were willing to make with him, and that for this Dr. Kebler and Dr. Bigelow should be reprimanded by you. So far as Dr. Rusby is concerned with respect to this particular contract, I do not find him at fault. For purposes of punishment or dismissal, I can not charge him with knowledge of the legal difficulties involved in his employment.

I examined the record in this case a number of weeks ago and reached the conclusion which I have stated here; but meantime, a committee of the house of representatives deemed it proper to institute an investigation into the department of agriculture, and especially into the bureau of chemistry and its relation to the department generally. It seemed to me under these conditions that perhaps it was wiser for me to delay until the investigation was completed and the report of the committee made. The committee has not made a report, although I believe the evidence has been substantially closed, and will not do so until the next session of congress. Further consideration satisfies me that there are very much broader questions involved in the investigation and the evidence there brought out than in the present charge which is narrow and definite and can now be properly disposed of. The broader issues raised by the investigation, which have a much weightier relation than this one to the general efficiency of the department, may require much more radical action than the question I have here considered and decided.

There is another charge against Dr. Rusby for securing the appointment, on the common laborers' roll, of a physician and expert whom he could use to do his work at a very small stipend when he himself was called away in other employment. I regret to say that the arrangement which Dr. Rusby thus made is not especially creditable to him, and shakes in some degree one's confidence in his avowed wish to make personal pecuniary sacrifice in the public interest for the enforcement of the pure food law. But Dr. Rusby's position as an expert of high skill and standing is such that I do not think that any more than this expression of opinion should be imposed as penalty. My information is that the government needs his services and that he has already rendered valuable aid. The error referred to, committed by him, should not call for further action or remark.

You will communicate the result to the personnel board and also to the persons charged.

Sincerely yours,
William H. Taft.

Comments on the president's decision and opinions are made in our editorial pages.

Substitution.

By C. W. S., in the New York World.

In poker and in trade,
When a sly move is made
Of course they must sweeten the pot.
They drop in glucose
With a spirit jocose
And observe like as not:

If you object to our superior article of glucose, which is a most excellent product, try some of our benzocate of soda water, good for rheumatism, locomotor ataxia and aneurism of the aorta.

By the right use of checks
Fine syrupus simplex
Is form'd from plain saccharin boil'd,
For sugar at best
Is only a test,
But explain if you're foiled:

Beets when properly macerated and pulverized and mixed with rutabaga turnips may by proper acidulation become a wholesome substitute for molasses, thus reducing household expenses nearly 3 per cent.

But don't forget that Wiley
Is recommended highly
As a substitute for fraud.

F. C. Ewing, of Glenwood Springs, Col., has retired after operating a store there for twenty-four years. He was a member of the Colorado Board of Pharmacy from 1901 to 1903, and sometime its president.

The health inspector of Warsaw, Russia, has ruled that there must be no smoking by proprietor, employee, or customer in any place where medicines are prepared.

Connecticut has a brand new law placing most stringent restrictions round the sale of liquors by druggists.

National Association of Retail Druggists.

Thirteenth Annual Convention, at Niagara Falls, N. Y., September 11th to 15th, 1911.

Everybody knows that Niagara Falls has long ago qualified as a convention site par excellence, and 'twas so that it appeared to the seven-hundred-odd persons officially registered at the meeting of the National Association of Retail Druggists, during the week of September 10th, and the several hundred other visitors to the convention. But somehow the accommodations for a large meeting are not in keeping with the national adaptness of the place, and there was considerable time lost in transferring the delegates from the lobby of the International Hotel to the meeting room in the Cataract House. This however was greatly compensated by the alacrity which President H. B. Guilford instilled into the transactions. Viewed from all sides, the meeting was rather uneventful. No momentous tasks were undertaken because none offered; and no marked changes in policy were entered upon although several plans for making the association of more direct and tangible usefulness to the retail drug trade were taken under consideration. Each of the 223 delegates—a rather small attendance, by the way—was imbued with a healthy interest in the proceedings, and there was always a goodly number before the president.

Cedar Point, Ohio, extended a formal invitation for the 1912 meeting; and it was rumored that Denver, Chicago, Detroit, and New York were seeking the same pleasure.

THE NEW OFFICERS.

By unanimous vote the convention entrusted the supervision of the affairs of the association during the ensuing year to the following officers: President, H. C. Shuptrine, of Savannah, Ga.; vice-presidents, T. B. Cartmell, of Wilmington, Del.; E. A. Bernius, of St. Louis, Mo.; and S. A. Eckstein, of Milwaukee, Wis.; secretary, T. H. Potts, of "the United States at large"; treasurer, H. I. Leith, of Providence, R. I.; and members of the executive committee, C. H. Huhn, of Minneapolis, Minn., chairman; H. W. Merritt, of Plains, Pa.; H. B. Guilford, of Rochester, N. Y.; A. E. Zuber, of Chicago, Ill.; E. H. Thiesing, of Cincinnati, Ohio; and J. A. Bean, of Boston, Mass.

FIRST SITTING.

Monday Evening.

Not even was standing room available in the convention hall of the Cataract House when the visitors assembled for the first sitting of the convention, which opened at the fall of the gavel in the hands of President H. B. Guilford, of Rochester, N. Y., at 9:10 p. m.

A fantasia by the orchestra, a brief invocation of divine guidance by Rev. J. E. Vassar, and the thirteenth annual convention was launched. President Guilford spoke briefly, welcoming the assemblage. He outlined the preparatory work for the success of the meeting and stated that the efforts of the local committee would contribute about \$3,500 to the treasury of the association. The president referred with feeling to the absence of the association's general counsel, Judge J. W. Errant, who had been stricken by apoplexy and was in a precarious condition.

At the introduction of the president Mayor P. J. Keller read a short speech of welcome to his bailiwick. The response to this was one of the treats of the convention, H. C. Shuptrine, of Savannah, Ga., who replied, proving beyond a doubt that oratory is not lost. So thrilling, so remarkable was his description of the grandeur of Niagara that the official welcomer of the city, Maj. O. W. Cutler, was tongue-tied when his time came to speak. Mr. Shuptrine referred also to the progress and the hopes of the association.

Druggist C. E. Zawadski and Maj. O. W. Cutler spoke a few words of welcome on behalf of the local drug trade, to which H. W. Merritt, of Plains, Pa., responded ably.

Next came the reception of delegates from other organizations, the first to be received being Prof. J. H. Beal, who extended the greetings of the American Pharmaceutical Association. Prof. Beal's address was listened to with marked attention. He spoke in disapproval of the matter of the consolidation of the two organizations, but recognized their community of interests and favored a working agreement in matters of policy and aims.

Mrs. W. E. Lee, of Philadelphia, Pa., brought greetings from the Woman's Organization of the National Association of Retail Druggists. She had praise for the accom-

plishments of the N. A. R. D. and called it to the support of the efforts for better food and drugs and cleaner advertising and store displays.

No delegates responded for the National Wholesale Druggists' Association and the Proprietary Association of America.

Announcement was made by the secretary that the president had selected Walter Rothwell, of Pennsylvania, and G. W. Stevens, of Michigan, to act as assistant secretaries during the convention.

The following were named as the committee on credentials: T. S. Armstrong, of New Jersey; J. F. Finneran, of Massachusetts; C. A. Storer, of Illinois; H. C. Frech, of Georgia; and J. J. Chilson, of New York.

The first sitting was then adjourned, at 10:40 o'clock.



HERMAN C. SHUPTRINE.
President National Association of Retail Druggists.

SECOND SITTING.

Tuesday Forenoon.

At 10.05 o'clock, Tuesday morning, the convention assembled for its second sitting. The assistant secretary read a message of regards from the National Association of Pharmacologists, and several messages from absent members.

Vice-President C. P. Gladding, of Hartford, Conn., assumed the chairman's gavel, and President Guilford read his annual message, as follows:

PRESIDENT'S ADDRESS.

In presenting to you my annual report it will be my endeavor to give you in as brief and concise a manner as possible a summary of the work of your national association, and to make such recommendations as I think best with the ultimate object of bettering our conditions.

When I accepted the honor of the presidency of the National Association of Retail Druggists for the year 1911, it was with grave doubts as to my ability to properly manage the affairs of your association. If I have only partially succeeded in maintaining the high standard set by my predecessors I am amply repaid for the efforts I have made.

Thirteen years have passed since the national association saw the light of day; thirteen years of progress and advancement. No one can honestly dispute the fact that we stand to-day the largest organization of retail merchants in the world. We have had our troubles, it is true; but at no time in our history have we been stronger financially or in membership than at the present. We are to-day an association of retail druggists, offset by retail druggists in the interests of retail druggists. Outside influence with us is a specter of the past. We are free from entanglements. The past year has been one of prosperity. Harmony, in all the word implies, has been our watchword. May all the years to come be better than the one just passed.

IMPROVED COMMERCIAL CONDITIONS.

It is a generally accepted fact that commercial conditions in the retail drug trade have been continually improving during the past twelve years. I believe this improvement is due largely to the activities of the N. A. R. D. Possibly we have been chasing some "rainbows" during the past twelve years, but who is there that can honestly say we have not accomplished much—that our "rainbow" chasing has been in vain?

Price protection has been our war cry during the years past, and it must be pleasing to all interested that at last we are assured a plan that guarantees a living profit to the retail druggist. Let me urge upon all loyal members of our association the necessity of doing anything and everything in their power to assist those who father the price-protection plan, and let me suggest that when a contract is submitted to you for signature you sign it at once and thus do your share in welding this endless chain of price protection.

NATIONAL LEGISLATION.

To my mind this is the most important subject for the consideration of our national association. In the past we have been continually on the defensive in legislative matters. It seems to me that the time has arrived for more aggressiveness. Let us frame legislation that we know will benefit the people. Let us again enlarge our legal department and increase the powers of our legislative committee and let us propose legislation that will redound to the everlasting glory of the National Association of Retail Druggists.

Bills are now before congress that if passed will result in great hardship to us, and only by great watchfulness on the part of our legal department, our legislative committee and the co-operation of our members can this unjust legislation be prevented. I would urge that all members of the legislative committee be kept in constant touch with national legislation by reports and that each member of our legislative committee be furnished with a copy of each bill introduced in congress, and that before the chairman of our legislative committee approve or disapprove any particular bill, he first consult with his legislative committee and our legal department. I would further suggest that in an emergency the chairman of the legislative committee be authorized to summon the legislative committee to Washington to appear at hearings on proposed legislation.

INTERSTATE NARCOTIC LEGISLATION.

It is astounding the little interest taken by the retail drug trade in the Foster or Cullom bill introduced into congress some time ago, which provides for the regulation of the sale of habit-forming drugs. The little interest that was manifested was by the retailers of Greater New York, who appeared before the ways and means committee in opposition to this measure as a whole. Representatives of the N. A. R. D. also appeared at this hearing and their position and views clearly indicated that they were not sufficiently alive to the importance and far-reaching influence this bill would have upon the retail drug trade.

The Foster bill makes every handler of the drugs specified in it pay an internal revenue tax. Every package must bear a revenue stamp. The retailer must keep a record of every transaction, every sale of any article containing any quantity, even the most minute, of any of the specified narcotics. He must give such bonds as the commissioner of internal revenue shall prescribe. The commissioner of internal revenue shall frame such regulations as he may see fit for the administration of the law. For any infraction of the law the retailer is liable to a minimum fine of \$500, or a minimum imprisonment of one year, or both.

The immense task laid upon the shoulders of the retail druggist by this bill is obvious. To stamp and record the sale of each of the thousands of articles affected by this bill is beyond the physical power of any ordinary druggist. Then, too, the expense to him for license and bond and necessary clerk hire would be enormous. Prescriptions would have to be suitably recorded, and, in fact, physicians could not dispense unless they were regularly licensed under the act, although hospitals and scientific institutions were exempted. I believe we should make a serious mistake to encourage or endorse a bill of this description.

THE SHERLEY STAMP TAX BILL.

Another bill has been introduced in the lower house of congress by Representative Sherley, of Kentucky, providing for a revival of the stamp tax on patents and proprietaries.

The excuse for this bill is that it is needed to make up for any deficiency in the government's revenues due to the proposed reduction of tariff duties. While it is well for our organization to be on the alert in opposing all such class legislation as the Sherley bill, my opinion is that there is little danger of this bill being seriously considered by congress.

The ways and means committee has given no consideration to the measure, and its author states that he is not urging its passage, and he had no idea that it will be considered at this session. If it should ever be considered a full hearing will be given to all opposed to the bill. It has no active supporters in congress, but many outspoken opponents. There is little likelihood that any general tariff reduction will be made by this congress and therefore there will be no necessity for the enactment of this war revenue measure.

However, eternal vigilance is always the best part of wisdom, and the legislative committee of our organization will be quick to act if there should come any real danger of the Sherley bill becoming a law.

AMENDMENTS TO PURE DRUGS ACT.

The United States supreme court, having decided in the Dr. Johnson "Cancer Cure" case that the pure food and drug act does not give the government any authority to prohibit the printing on labels of claims as to the curative value of any proprietary medicine, President Taft has called upon congress in a special message to amend the law so as to overcome the defect pointed out by the supreme court. In

the lower house a bill for that purpose has been introduced by Representative Sherley and another by Representative Richardson. In the senate a similar bill has been introduced by Senator McCumber. As the highest court declared that the therapeutic effects of a medicinal preparation were largely a matter of opinion and prophecy, great care must be exercised in order to draft a measure that will be sustained by the courts. The law should not be so drastic as to prohibit the sale of all household remedies and thus force everybody to consult a physician for even the slightest ailments. And this organization should not be too hasty in endorsing any of the bills before congress until it is clear that it does not interfere unfairly with the legitimate business of the retail druggist.

Our organization stands for pure drugs and safe medicines at all times, but should not stand for an oppressive monopoly in the sale and dispensing of medicines.

TELEPHONE CONDITIONS.

I wish to congratulate the telephone committee on the splendid success they have achieved in the matter of adjusting telephone difficulties between the retail drug trade and the telephone companies throughout the United States.

The usual commission allowed retail druggists on their telephone calls is 40 per cent. on city messages and 10 per cent. on outside tolls. This I consider a fair compensation to the retail druggist considering the fact that he furnishes rent, heat, light and clerk hire for the maintenance of said telephones.

The American Telephone Company are using their utmost endeavors to reduce this commission, making a flat commission of 10 per cent. on all messages. I consider this reduction unfair and unjust and recommend that our association demand a commission of not less than 40 per cent. and urge our telephone committee to use every honorable means to accomplish this end.

CORDIAL RELATIONS WITH PHYSICIANS.

At the recent meeting of the American Medical Association at Los Angeles, the section of pharmacology and therapeutics made the following recommendation to the main body, which I understand was approved:

"That physicians shall as far as possible relegate to pharmacists the dispensing, and limit to themselves the prescribing of medicines. The proper selection, preservation, preparation, compounding and dispensing of medicines require proper education and training, not included in the course of instruction given in medical schools, but comprised in the courses furnished by the schools of pharmacy."

This is a broad and liberal doctrine, which every N. A. R. D. member can heartily endorse. Our convention should reaffirm its position on this question and at the same time express its emphatic disapproval of counter-prescribing by pharmacists.

The A. M. A. has shown a most commendable spirit of fair play in adopting this recommendation. It will be a powerful factor in strengthening the bonds of friendship and co-operation between physicians and pharmacists. It will do much toward making the "get-together" movement a reality.

U. S. P. AND N. F. PROPAGANDA MOVEMENT.

The report of our propaganda committee will show you that substantial results are being accomplished along this line. The number of physicians prescribing U. S. P. and N. F. preparations is constantly increasing, and the propaganda meetings held in hundreds of cities have done wonders in establishing friendly relations between physicians and pharmacists, to the business and social advantage of both professions. The movement tends to restore pharmacy to its proper rank as a profession, and to increase the confidence of the public in the knowledge and skill of its devotees.

CO-OPERATION.

It must be through genuine co-operation and mutual good will that the greatest usefulness and highest efficiency of our association will be attained. "All for one and one for all" should become a living reality in all our relations with one another and in our loyalty to our common cause. This is the fundamental principle of our organization, and our safety lies in faithful adherence to it in spirit and in truth. It is the sacred ark of our covenant and so long as we hold to it, protect and defend it, so long will we prosper.

With us, co-operation means more than empty theory. It means more than glittering generalities. It means dollars and cents earned for the retail druggist.

When we were organized there was in existence a highly ethical and eminently scientific professional organization of pharmacists, manufacturing proprietors and physicians known as the American Pharmaceutical Association. This body is serving its purpose well in conserving and advancing the professional side of pharmacy. It has taken a conspicuous part in the various revisions of the United States Pharmacopoeia. It is prominent in other scientific works and today is a most important factor in its field. Its record is one which every pharmacist may well be proud of.

Until recently the A. Ph. A. did not much concern itself with the commercial side of pharmacy. Most of its members did not regard the discussion of business questions relating to greater profits for the pharmacists as worthy of a place on the programmes of their conventions. The druggist was not supposed to give much thought to what he should eat or wherewithal he should be clothed. The N. A. R. D. was organized years ago for the particular purpose of regulating, conserving and advancing the commercial side of our profession. At the Louisville convention we endorsed commercial co-operation. We encouraged the formation of buying clubs and manufacturing co-operative associations of retail druggists as the most effective means of protecting these interests. This endorsement was renewed at the Pittsburgh convention and I have no doubt will again be endorsed by this convention. It appears to me that in taking this stand our association acted wisely. Most assuredly co-operation can do the retailer

much good and absolutely no harm. We have the testimony of thousands of retail druggists who have received substantial benefits from participation in co-operative enterprises. Personally I have experienced these advantages and I know whereof I speak, and I dare say the majority here present can give evidence to the same effect.

I am frank to say that I am a firm believer in buying clubs and the more extensive buying and manufacturing enterprises, and I cannot see why any retail druggist or friend of the retail druggist should oppose such enterprises in the face of the overwhelming proof that they increase the legitimate profits of the retailer and place our profession on a more independent foundation.

Whatever we do, let us not take a step backward on the question of co-operation, for I believe in it lies our salvation as independent drug merchants. May we continue to encourage all movements that have for their purpose the improvement of our business and professional conditions.

HONORABLE BUSINESS METHODS.

We have already done much for the education of our members along these lines, but I believe the work should be widened and that everything possible should be done to help our members make more money by all honest means and methods. We should be proud that our association has taken such a strong stand against dishonorable methods of making money in the drug business. We stand firmly against the sale of habit-forming drugs except under proper restrictions, and it has been largely through our efforts that most of the States have regulated such sales.

Our organization has also declared itself against the illegitimate sale of intoxicating liquors in drug stores. In States having the most stringent prohibition laws men have been driven out of the saloon business and have opened drug stores as a blind for the sale of intoxicating liquors, employing a registered pharmacist and continuing their nefarious business under the guise of legitimate pharmacy. Such disreputable stores have been condemned by honorable druggists who have aided the authorities in suppressing them.

NATIONAL EXECUTIVE COMMITTEE.

When I was first introduced to your national executive committee through the office I now occupy, I was surprised and pleased with the way the business of our association was transacted by our executive officers. As a practical business man I wish to say that in my opinion you cannot improve your method of business except possibly in small details.

I believe your executive committee should meet quarterly, January, April, July and September. This would add greatly to the efficiency of your committee. I believe also the office of treasurer should be combined with that of the secretary, which would effect a material saving and facilitate the work of your national headquarters.

N. A. R. D. NOTES.

We have in our publication, Notes, the actual life of our association, and I believe it is due to this splendid publication that our organization is in the good financial condition you find it to-day. I am pleased to congratulate you upon having such a valuable asset. May it continue to grow and improve in the next thirteen years as it has in the past, and may we always find it fighting on the side of right, justice and a square deal for the retail druggist.

PROCTER MEMORIAL.

Let us continue the work of assisting in the erecting of the memorial to William Procter, the father of pharmacy in America. We surely owe a debt of gratitude to the men who have been instrumental in promoting this memorial for their unselfish and untiring efforts.

I recommend that our association appropriate from its treasury \$100 for this memorial rather than resort to the collection which has always been in vogue. This will be a more dignified procedure and all members of our association will then be contributors.

There was collected at the Louisville and Pittsburgh meetings by Dr. Muir, chairman of this committee, the sum of \$269.50, which was remitted to Dr. Whelpley, the treasurer of the A. Ph. A.

N. A. R. D. RELIEF FUND.

This fund has grown until it is now approximately \$5,300. Five thousand dollars of this fund is invested in first mortgage appraised Chicago real estate at 5½ per cent., an absolutely secure investment. I believe that we should yearly add to this fund and when it has reached an amount equal to \$25,000 or more invest this fund in a building of our own, in which we could have our national headquarters, and possibly hold our annual conventions with the annual drug show combined, from which revenue could be derived sufficient for the maintenance of said building.

I look forward with confidence to the realization of this ideal. Our association is founded on a permanent basis; let us have a permanent home for it, a monument to its solidity and at the same time a self-supporting enterprise that may reflect the practical character of our membership.

This year we will derive a considerable profit from our exhibits after all expenses are paid. Let us add this sum to the N. A. R. D. relief fund and thus begin our savings for our permanent home.

NINTH REVISION OF THE U. S. P.

The committee on revision of the U. S. P. has issued its report on admissions and deletions. I strongly recommend that the N. A. R. D. continue to give to the ninth revision every assistance possible in order that the book may be as complete and perfect as it can be made. The U. S. P. is of untold benefit to us all and we should all give our support to the committee of revision regardless of any mistakes in the past.

CONCLUSION.

My friends, let me conclude with these few words. We

should all be optimists to-day. Never in its history has our organization been more united, harmonious and prosperous. Its prestige and influence were never before so great. Its high ideals, righteous policies and substantial achievements have won for it the confidence and respect of the American people. It is universally regarded as one of the most worthy professional organizations.

All dissension in and defection from our ranks have happily been healed, and to-day we stand shoulder to shoulder with hearts beating in unison, with high hopes for a still greater progress and growth. Allow me to congratulate you, fellow members, and you may well felicitate yourselves on the splendid condition of your association and its most encouraging outlook for the future.

Let us guard what we have gained with care. Let us profit by our past mistakes and seek in every honorable way to avoid strife and dissension. Let us always put principle above petty partisanship and the good of pharmacy above the gratification of personal ambition.

I have enjoyed the work of the past year. I prize highly the friends I have made, and appreciate greatly the courteous treatment I have received from the executive committee and our national headquarters, and I trust the section you made for president one year ago has not been a disappointment to you. I have given you the best I could command. I thank you again, gentlemen, for this great honor.

In the customary method of procedure this address was referred to the consideration of the committee on resolutions.

Thomas Stoddart, of New York, made a brief reference to the matter of legislation and telephones touched upon by the president.

Mr. Guilford, having resumed the chair, called for the report of the executive committee, which was presented by the chairman of the committee, C. F. Mann, of Detroit, Mich., and was as follows:

REPORT OF THE EXECUTIVE COMMITTEE.

The work of the executive committee during the year just closing has been more free of complex situations than any since the beginning of the association. The turbulent features of former years and the tantalizing bickering of foreign forces have been almost, if not quite, entirely lacking. This leads us to believe that the policies, positions and work of the association have become so stable as to permanently outweigh the efforts of its critics, and that the N. A. R. D. is more firmly entrenched than ever before to fulfill its mission of protecting, uplifting and promoting the interests of the retail drug trade.

DECISION OF UNITED STATES SUPREME COURT ON DIRECT-CONTRACT-AND-SERIAL-NUMBER PLAN.

Perhaps the question of paramount interest of the year to our members, because of its close relationship to one of the fundamental issues of the association, was the final decision in the case of the Miles Medical Company against John D. Park & Sons. The history of this celebrated case, carried through the various courts, is more or less familiar to all of us, and we will make no attempt to go into its details at this time. (Reference will no doubt be made to it in the report of the legal department as well as in the general discussion of this convention.)

Contrary to the expectation of some, this decision has not been so great a "body blow" to price protection as was anticipated.

The progressiveness shown by the Miles Medical Company in cancelling its old contracts in one breath and putting a new one in force in the next, is powerful evidence that price protection is still a very live issue and one that will not be downed, but one that eventually must endure.

The history of the Miles Medical Company's fight for price protection on the direct agency contract and serial number plan, unequivocally elevates them to the highest pinnacle in loyalty to the retail drug trade, and this convention should manifest its appreciation in such a vigorous and wholehearted manner as to serve as a business object lesson to every other manufacturer marketing his products through the retail drug channels.

PRICE PROTECTION.

Price protection was the issue that had more to do with the inception of the N. A. R. D. than any other question. Through the years of the N. A. R. D. work it has stood out as the great issue. Its success has been attempted in various ways. The legal standing of the various plans proposed for its maintenance have been attacked from all quarters until finally, with the full texts of both the majority and dissenting opinions of the court of last resort, we are just beginning to find the right course to pursue in attaining a living profit for the retailer on proprietaries.

It is confidently expected that the modified Miles contract which follows somewhat the lines of the Freeman contract and which is still in force will stand the test of the courts. The committee is firm in the belief that the demand for price protection should be one of the prominent issues of the N. A. R. D., and that with united effort progress can be made in enlisting the efforts of manufacturers. Most of our failures are due to lack of united and constant effort. It takes perseverance and energy to get anything worth having.

RELATIONS WITH WHOLESALE AND MANUFACTURER.

Time was when the N. A. R. D. laid much stress on its relations with the wholesale and manufacturing trade. The Indianapolis injunction has apparently put almost a complete quietus on the interchange of ideas and the discussion of business relations between the three branches of trade. While your committee has no desire to urge the N. A. R. D. to attempt to unwarrantably circumvent the restraining influence of the Indianapolis injunction, it does believe that

closer relations should be courted than exist at present in merely receiving the delegates of the allied branches of trade and listening to laudatory addresses. There should be some scheme of bringing to the attention of the conventions of the three branches of trade matters of common interest for discussion. This is notably true of legislative matters, for no legislation along drug lines can be intelligently enacted that does not amply consider the manufacturers as well as the various distributors of drugs and medicines. Close relations between the attorneys and legislative committees of the various drug and medical associations should be courted.



CHARLES H. HUHN.

Chairman of the Executive Member of the Executive Committee.



H. B. GUILFORD.

Member of the Executive Committee.

THE SECRETARY'S OFFICE.

The executive committee, through the secretary, is kept in close and constant touch with all the work of the association, receiving at regular intervals reports of the treasurer, the heads of the different departments and those of the standing committees that are doing active work during the year.

The work of the secretary's office has been dispatched with the usual business-like precision, and thorough examination of the office by the executive committee during its mid-year meeting was highly satisfactory to the committee.

The secretary, as has been his custom in former years, has again visited a number of affiliated State associations during their annual meetings. Your committee is convinced that this practice is of inestimable value to the N. A. R. D., bringing, as it does, so many of our affiliated members into direct contact with the active working officer of the association, thereby giving them the intelligence of our work at first hand.

The committee recommends that this practice be extended as far as possible in the future.

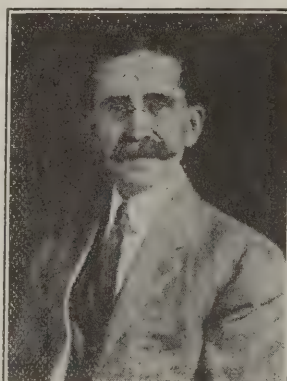
PUBLICITY DEPARTMENT.

There is no branch of our work that is watched more carefully by the committee than the development of N. A. R. D. Notes, and we believe the membership at large will agree with the committee in the belief that good progress is being



HENRY W. MERRITT.

Member of the Executive Committee.



E. H. THIESING.

Member of the Executive Committee.

made by this department. Notes is improving yearly in usefulness to our members. Matters of vital importance to the drug trade are dealt with in an impartial way, and the attempt is being made to put matters of general interest to the drug trade before our readers in a way that appeals to the masses rather than the classes.

New departments are being added and the size of the publication is being increased as fast as good business dictates.

The expense of development is being kept in harmony with the increase of revenue from the advertising pages.

The committee aims at all times to co-operate with the director and editor in advancing new features that tend to increase the value and usefulness of the publication to our members.

The advertising pages have been kept quite free from objectionable matter and have increased in keeping with the general enlargement of Notes.

Aside from serving as the great expounder of N. A. R. D. doctrines, Notes continues to aid most materially in keeping the finances of the association in a healthy condition, as will be attested by the treasurer's report.

The committee has no particular recommendation to make other than to impress upon the association the great necessity for the hearty support of the membership in elevating and improving Notes, because of the very important part it plays in the life of the association. The members should be free with impartial criticism as well as with contributions of matters of education and general interest to the trade.

ORGANIZATION DEPARTMENT.

Time continues to demonstrate that the organization department is absolutely essential in keeping and increasing the membership. Various schemes have been tried to curtail the number of field men, but the stubborn fact remains that personal contact with the organizers does more to maintain and increase membership than any other agency yet found.

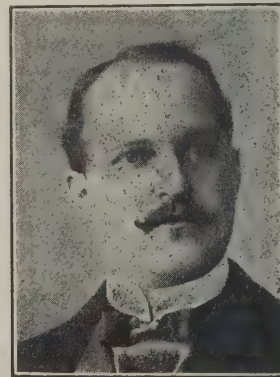
For the past several years the field men have covered large territories; this has resulted in sending the men into new fields, where the lack of previous acquaintance has been some handicap. Your committee, after careful canvass of the results of the work of the organizers, believe it most essential that more field men be employed and that so far as possible the men be left in the same territory as long as possible. It has been demonstrated that the membership in those States where the same organizers have worked from year to year has been held more intact than where new men were being sent and at irregular intervals.

At the midyear meeting of the committee an advertising scheme for stimulating interest in the association and increasing the membership was favorably acted upon. There



A. E. ZUBER.

Member of the Executive Committee.



J. ARTHUR BEAN.

Member of the Executive Committee.

has hardly enough time elapsed to definitely determine the value of the scheme. The report of the organization department will no doubt touch upon this matter of stimulating interest, and future use of such schemes should be determined by the results that will shortly be manifest.

The work of the department for the year has been very satisfactory and results creditable to the men engaged in this work.

COLLECTION DEPARTMENT.

The results of the simple and inexpensive scheme for collection of bad or dead accounts for our members that was inaugurated last year, have far exceeded expectations. Reports will show the number of accounts collected and the aggregate of money saved for our members through this agency.

Your committee urges the membership to make more general use of this department. This one item in itself can be made to compensate all our members having doubtful accounts on their books, for the payment of dues many times over, if no other benefit were to accrue therefrom.

PROPAGANDA DEPARTMENT.

The propaganda for more ethical and better pharmacy and prescribing has been conducted long enough to convince us of the immense amount of work necessary to bring about great reforms. While comparatively few of our members have lent the co-operation necessary to attain most satisfactory results, those who have are being amply repaid. The efforts of the propaganda committee and propaganda department cannot accomplish the best results without full co-operation of our members, and we again urge our members to embrace the opportunity that the association is giving so much attention in exploiting.

The campaign thus far has followed the original lines started and the committee suggests that the propaganda committee and propaganda department try to originate new and original ideas for the future work of the department. The character of the literature used, while quite satisfactory,

should have frequent changes to renew the interest of the physicians. The same methods will not keep up constant interest.

The results attained are quite satisfactory, considering the many obstacles that must be overcome in this work, and it is the opinion of the committee that propaganda work should continue to occupy a prominent place in our efforts.

LEGAL DEPARTMENT.

Acting on the advice of the Pittsburgh convention, your committee at its midyear meeting weighed very carefully the advisability of extending into larger fields the work of the legal department. While the convention in a broad way passed resolutions for the extension of this feature of our work, many questions entered into the fulfillment of the resolutions. The item of expense is naturally of greatest importance in considering the feasibility of giving greater legal service to our members. And again the lines to follow that will prove of greatest service to the members.

It is fair to assume that the N. A. R. D. occupies the strongest position, because of its system of membership, for the furthering of reforms in the retail drug trade, and we believe the extension of the legal work conducted along careful and well advised lines will prove of greater worth to the association, not alone in aiding to increase membership, but in doing a work for the members that is quite impossible if attempted locally.

The plans outlined for the greater legal department are to furnish as much advice as possible to individual dues-paid members, to aid State associations in State legislation, to originate both State and national laws when deemed advisable, to codify the laws of the various States with the aim of bringing about more uniform legislation, and to extend the legal department of N. A. R. D. Notes in furnishing more legal news and general information to guide our members in the observance of existing laws.

The lateness of the midyear meeting of the committee authorizing the extension of the legal work, made it quite impossible to put into full operation some of the plans suggested, but the general attorney made several trips to State legislatures, aiding the State legislative committees on pending bills as well as furnishing much general information by correspondence. A general outline for future work as well as the work of the year will be made in the report of this department.

The committee has been in full accord with the expansion of this feature of our work, but foresees the danger of entailment of too great expense if the work is extended too rapidly and entirely at N. A. R. D. expense. The expense entailed in time and travel by the general attorney if called upon too frequently by State associations in legislative work may prove a great burden to the association. We believe in this class of work. Arrangements should be made whereby a division of expenses with the State associations will be effected.

[At this juncture Mr. Mann voiced the regret of the committee that illness had prevented the presence of the general counsel, Judge Errant.]

SEATING OF DELEGATES IN CONVENTION.

There has been considerable criticism in the past in the matter of seating ineligible delegates in the conventions. Article III, section 2, of the constitution reads in part as follows: "All delegates shall be actively engaged in the retail drug business." Your committee believes that a strict observance of the constitution by the credentials committee will obviate further criticism and recommends that this course be followed.

STATE OF MEMBERSHIP.

There are annually brought to the attention of the committee a number of instances of impending secessions of affiliated associations. These instances are usually a result of misconception of the work and usefulness of the N. A. R. D., and we are glad to state that such occurrences during the year have been dispelled in most instances by the combined efforts of the secretary's office and stalwart N. A. R. D. members of the association in question.

Reports of the secretary's office will reveal a healthy state of membership and prove that our forces are remaining quite intact. In this connection your committee rejoices with the association in the reaffiliation of the Philadelphia Association of Retail Druggists.

AVOIDANCE OF ENTANGLEMENTS.

The growth and development of the N. A. R. D. has been largely responsible or has made possible many of the co-operative organizations of retail druggists. It has been the policy of the committee to treat fairly with these organizations and take a neutral stand in the controversies that occasionally arise. While many of these organizations are materially helpful to the retail drug trade, your committee believes it should be the unalterable policy of the N. A. R. D. to avoid entanglements with such organizations because of the broad scope of our work and the fact of our laboring for the retail drug trade as a whole. Nevertheless, we believe it to be the duty of the N. A. R. D. to carefully scrutinize co-operative enterprises in order to protect its membership from loss by unscrupulous promoters.

CO-OPERATION WITH THE AMERICAN PHARMACEUTICAL ASSOCIATION AND STATE PHARMACEUTICAL ASSOCIATIONS.

There are many branches of our work that suggest added benefits through more thorough co-operation with the American Pharmaceutical Association and State pharmaceutical associations, constituted mainly of retail druggists. There is every reason why these organizations should work in perfect harmony with the N. A. R. D. and get into closer relations on such matters as legislation and propaganda work. It is only by concentrated and united effort that our ideals can be reached.

SELECTION OF MEETING PLACE.

It is unfortunate that in selecting a meeting place for the convention there is always danger of disappointing many of our affiliated organizations who naturally believe preference should be given their localities. The committee in making selection of meeting place aims to take the broadest possible view of serving the best interests of the members.

The selection of Niagara Falls for this convention the committee believes to be a happy one, because of the beauty of surroundings, the full co-operation of the retail druggists, the business men's association and the hotels.

FINANCES.

The real success of this association, like any other business proposition, must depend largely on its financial standing. The amount of work done, the quality of help engaged in the work, new departures and general increased usefulness depend greatly on the financial support of the members, supplemented by the earning power of N. A. R. D. Notes.

In announcing a healthy condition of finances the committee believes that the association has been singularly successful since its beginning in the husbanding and handling of its finances. All bills and accounts are promptly paid and discounts taken advantage of when available.

MEETING OF THE EXECUTIVE COMMITTEE.

The established regular custom of holding three meetings of the committee during the convention year has again been carried out. One immediately after the Pittsburgh convention, the midyear meeting at Chicago, the week of February 27th, and the final meeting just preceding the opening of this convention.

Experience has demonstrated that the launching of activities for the year depends largely on the outcome of the so-called mid-year meeting of the committee. The practice has been to call this meeting as early in the calendar year as possible. January being the general meeting time for so many of the corporations and organizations that members of the committee are interested in, it seems almost impossible to arrange a satisfactory date during this month, and the committee therefore suggests that future mid-year meetings be held before the first of the calendar year. The general outline of the work of the year can thus be made in time for beginning of activities with the fiscal year.

GENERAL RESULTS OF THE YEAR'S WORK AND OUTLOOK OF THE FUTURE.

Viewed from all angles the past year has been one of pronounced success in more firmly establishing the stability of the organization. The many expressions by resolutions of both State and local associations, of loyalty and confidence are reassuring evidence that the retail drug trade more fully appreciates the necessity of a great national organization safeguarding its welfare.

The flattering comments of the medical profession, both by correspondence with headquarters and in speech at the successful get-together meetings held in various parts of the country, exemplify the success of this feature of our work and the continued need of featuring it.

The war against overpriced proprietaries is making headway in not only the occasional reduction in price of some product of long standing, but in keeping the manufacturer within bounds in the pricing of new remedies and products.

The retail drug trade has the power of realizing an adequate profit on proprietaries if it will but unanimously demand it. The war against overpriced proprietaries should be carried on relentlessly by every individual as well as the association.

Price protection is constantly engaging the attention of the manufacturer and is making sure progress where the effort is honestly made. The slogan should be on every retail druggist's tongue at all times.

In matters of legislation the N. A. R. D. is growing in power and gradually attaining a more commanding position. Our efforts in this direction will always be enhanced by the aid of having druggists as members of the various legislative bodies and the N. A. R. D. as well as its affiliated associations must thoroughly awaken to this need.

The growth of the advertising pages of N. A. R. D. Notes is evidence that the trade is more fully appreciating the power of the journal in reaching the retail drug trade. If the journal is not already, it soon will be the recognized medium through which the manufacturer and jobber should carry on their publicity campaigns.

The entire work of the year has been carried on with the utmost harmony, not alone with the officers and employees, but the affiliated associations as well, and your committee foresees, if possible, a brighter and greater future than ever for the N. A. R. D.

This report also was referred to the committee on resolutions.

S. A. Eckstein, of Wisconsin, referred feelingly to the loss to the meeting through the illness of Judge J. W. Errant and Dr. William Muir; and, on motion, a message of condolence was sent to each.

The next order of business was the presentation of resolutions without debate. S. N. Jones, of Kentucky, raised the question of the feasibility of reading those resolutions that had been printed in N. A. R. D. Notes. President Gullford and Mr. Mann opined that they should be read together with all others.

I. M. Light, of Illinois, read nine resolutions submitted under the approval of the Chicago Retail Druggists' Association. Thereupon a motion by J. C. Wallace, of Pennsylvania, prevailed to the effect that the resolutions be

read by title only. Resolutions were presented under the names of the Western Pennsylvania Retail Druggists' Association, the Pennsylvania Pharmaceutical Association, the Ohio Valley Druggists' Association, the Kentucky Pharmaceutical Association, and the Women's Organization of the National Association of Retail Druggists.

J. G. Godding, of Boston, Mass., the president of the American Pharmaceutical Association, was escorted to the platform and introduced by President Guilford. He expressed his pleasure and appreciation of the occasion.

M. P. Welcher, field-secretary of the Anti-Cigarette League, was introduced, and asked the convention to give thought to the use of cigarettes as an influence in juvenile delinquency and social economy generally. J. G. Bone, of Pennsylvania, voiced a hope that the convention would express its opposition to the sale of cigarettes to minors.

Adjournment followed at 12:05 o'clock.

THIRD SITTING.

Tuesday Afternoon.

Again at 2:50 o'clock the convention was in order, and the assistant secretary proceeded with the roll-call of the States for the purpose of securing a record of the names of the delegates selected by the various delegations to serve as their chairmen and representatives upon the committees on resolutions, nominations and finance. This list of names, after subsequent additions had been made, was as follows, the letters before each name designating the positions in which the delegate served:

Colorado—(C and R) C. J. Clayton; (N and F.) L. Wilson.

Connecticut—C. P. Gladding (all).

Delaware—(C and N) Walter Grant; (R) W. L. Morgan; (F) T. B. Cartmell.

District of Columbia—W. S. Richardson (all).

Florida—Ernest Berger (all).

Georgia—(C and F) D. G. Wise; (R) L. E. Pellew; (N) W. S. Elkin, Jr.

Illinois—(C) C. H. Achelpohl; (R) James Wells; (N) J. J. Boehm; (F) R. Dorland.

Indiana—(C) F. W. Meissner; (R) E. W. Stucky; (N) M. A. Stout; (F) C. A. Haupt.

Iowa—H. S. Keables (all).

Kentucky—(C) S. N. Jones; (R) John Hulskamp; (N) J. J. Sieberz; (F) R. L. Cassity.

Louisiana—(C, R and F) G. W. McDuff; (N) A. Di Tripani.

Maryland—G. A. Bunting (all).

Massachusetts—(C and R) W. S. Briery; (N) J. J. Tobin; (F) P. B. Moriarity.

Michigan—(C) J. H. Webster; (R) M. H. Goodale; (N) F. W. R. Perry; (F) E. W. Austin.

Minnesota—(C and R) Stewart Gamble; (N) C. H. Huhn; (F) C. H. Haywood.

Missouri—(C) H. O. Huegel; (R) J. W. Koch; (N) W. A. Buesch; (F) George Ausgen.

New Hampshire—C. J. Whiting (all).

New Jersey—(C and F) T. S. Armstrong; (R) H. B. Weaver; (N) W. E. Warn.

New York—(C) Thomas Stoddart; (R) W. C. Anderson; (N) Joseph Weinstein; (F) C. H. Gillespie.

Ohio—(C) L. C. Hopp; (R) J. C. Otis; (N) F. W. Schneurer; (F) T. C. Haney.

Pennsylvania—(C) D. J. Reese; (R) E. F. Heffner; (N) Charles Rehfuess; (F) W. D. White.

Rhode Island—(C and R) H. I. Leith; (N) A. P. Sanborn; (F) G. S. Morgan.

Texas—Herman Koester (all).

Virginia—J. L. Avis (all).

West Virginia—W. C. Gordon (all).

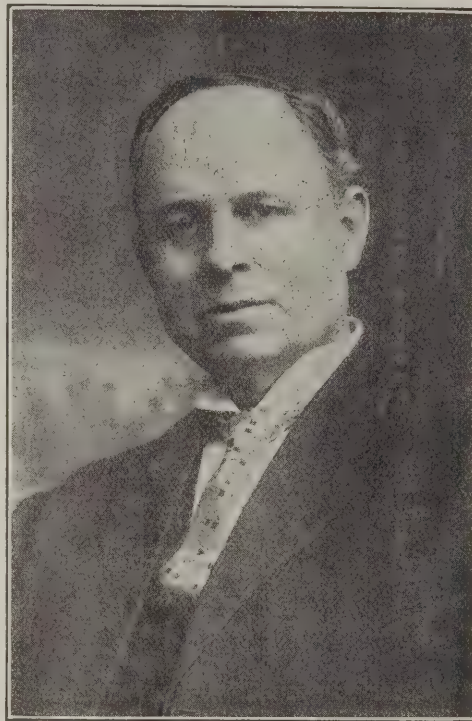
Wisconsin—(C and R) S. A. Eckstein; (N) Edward Williams; (F) A. R. Eberle.

SECRETARY'S REPORT.

Secretary T. H. Potts then submitted the annual report of his office. This was not quite so voluminous as in recent years, an innovation brought about by an action of the association at its 1910 meeting with a view to expediting the proceedings of the conventions. The summary showed that the association had in affiliated membership 32 State associations, a loss of 3 from the preceding year, and a total affiliated membership of 1038 associations, a gain of 8.

The report testified to the harmonious and frictionless manner in which the various departments of the organization worked together. As usual, the secretary had to complain of spending \$350 in exchange fees on remittances by personal check.

This report was referred in the customary manner.



THOMAS H. POTTS.

Secretary National Association of Retail Druggists.

REPORT OF THE TREASURER.

Printed copies of the report of the treasurer, a voluminous tabulation of names and figures, were distributed to the delegates and others present and Treasurer H. I. Leith, of Providence, R. I., made an abstract report on the year's financial transactions. From this report the following salient features are selected:

	1899.	1900.	1901.
Local dues back.....	No separate account kept for first		
Local dues current.....	No separate account kept for first		
Back State dues.....	Previously included in State dues		
State dues.....	No separate account kept for first		
Advance dues.....	No separate account kept for first		
Total	\$2,062.75	\$4,558.75	\$6,462.00
Organization fees...Included with donations for 1901, 1902 & 1903.			
Donations	\$2,486.40	\$1,092.41	\$13,435.00
Salary refunds.....Formerly included with organization fees.			
Notes			
Advertising			
Interest			
Merchandise			
U. S. P. & N. F. prop- aganda			
Miscellaneous			
	\$4,549.15	\$5,651.16	\$19,897.00
Per capita, State....	25c.	50c.	50c.
Per capita, local....	25c.	50c.	50c.

The number of members in good standing in the various

Local members who paid dues previous to convention.....
*State members whose dues were paid previous to convention..

Total

Local members who paid dues subsequent to convention.....
*State members whose dues were paid previous to convention..

Totals

*Not separated previous to this year.

RECEIPTS.

On hand as per report to Pittsburgh, Pa., convention	\$8,507.55	
Reported in hands of secretary.....	2,000.00	
		\$10,507.55
Back dues.....	\$2,604.00	
1911 dues (does not include "Notes").....	18,475.75	
1912 dues.....	48.00	
Back State dues.....	495.00	
1911 State dues.....	1,456.25	
Organization fees.....	10.00	
Salary refunds.....	160.00	
Donations.....	5.00	
U. S. P. & N. F. propaganda.....	1,032.83	
"Notes" receipts (subscriptions and advertising).....	63,792.45	
Sales department (books and merchandise).....	3,495.00	
Interest.....	180.23	
Miscellaneous (debtors' letters, etc.).....	428.23	
		92,182.74
		\$102,690.29

DISBURSEMENTS.

(As per Vouchers 2073 to 2303 Inclusive.)

Expenses of the secretary's office.....	\$16,009.55	
Expenses of the treasurer's office.....	346.00	
Per diem, mileage, expenses of the executive committee.....	703.18	
Expenses of the organization department.....	17,099.61	
Expenses of the publicity department.....	45,251.90	
Expenses of legal department.....	1,890.90	
Auditing.....	249.98	
Expenses of the U. S. P. and N. F. department.....	3,518.88	
Expenses of legislative committee (stationery, postage and stenographic work).....	150.00	
Expenses of the Pittsburgh convention.....	936.32	
Sales department (books and other merchandise).....	2,626.90	
		88,783.22
Secretary's balance.....	2,000.00	
Treasurer's balance.....	11,907.07	
		13,907.07
		\$102,690.29

Here followed a tabulated statement of the various items of expense in the several offices and departments, and a detailed statement of the money received from affiliated organizations. Summarized under the various States this latter shows the figures given below:

RECEIPTS FROM ASSOCIATIONS IN THE VARIOUS STATES.

1 Illinois.....	\$3,573.00
2 Indiana.....	2,129.00
3 Ohio.....	1,930.00
4 Pennsylvania.....	1,863.75
5 Massachusetts.....	1,739.00
6 Kentucky.....	1,174.50
7 Missouri.....	1,032.00
8 New York.....	1,023.00
9 Wisconsin.....	1,017.00
10 Michigan.....	1,007.50
11 Iowa.....	992.00
12 Minnesota.....	843.00
13 New Jersey.....	455.50
14 Georgia.....	405.00
15 Rhode Island.....	364.00
16 Virginia.....	310.75

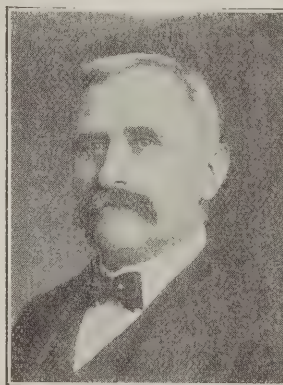
17 Connecticut.....	\$309.75
18 North Carolina.....	306.50
19 Alabama.....	306.00
20 California.....	225.00
21 Arkansas.....	192.00
22 Colorado.....	189.75
23 New Hampshire.....	189.00
24 Delaware.....	170.50
25 Texas.....	168.00
26 Florida.....	162.00
27 North Dakota.....	155.00
28 Kansas.....	153.00
29 Nebraska.....	130.00
30 Montana.....	111.00
31 Tennessee.....	105.50
32 Louisiana.....	81.00
33 West Virginia.....	63.00
34 South Carolina.....	60.00
35 District of Columbia.....	51.00
36 Oregon.....	48.00
37 South Dakota.....	48.00
38 Maryland.....	45.00
39 Washington.....	27.00
40 Mississippi.....	24.00
41 Utah.....	21.00
42 Idaho.....	12.00
43 Oregon.....	12.00
44 Maryland.....	12.00
45 Vermont.....	9.00
46 Arizona.....	6.00
47 New Mexico.....	3.00
48 Wyoming.....	3.00

\$23,254.00

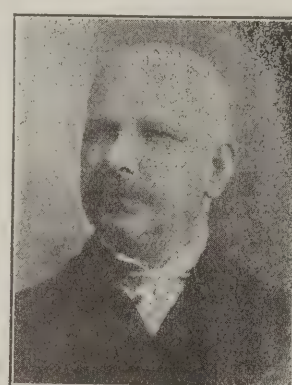
The report was referred to the committee on finance.

REPORT OF THE ORGANIZATION DEPARTMENT.

Supplementary to the secretary's report was submitted the report of the organization department which was read



T. B. CARTMELL.
First Vice-President.



HARVEY I. LEITH.
Re-elected Treasurer.

RECEIPTS SINCE ORGANIZATION.

1902.	1903.	1904.	1905.	1906.	1907.	1908.	1909.	1910.	1911.
5 years.....		\$8,107.00	\$10,253.00	\$11,359.00	\$13,962.50	\$7,742.25	\$6,149.50	\$4,995.75	\$2,604.00
5 years.....		14,819.00	44,662.65	44,517.25	33,411.75	30,344.00	36,945.92	19,885.25	18,475.75
5 years.....		2,420.00	1,893.25	1,214.00	2,342.25	1,568.00	2,282.25	1,915.75	495.00
5 years.....								84.00	1,456.25
									48.00
\$5,722.75	\$13,995.75	\$25,346.00	\$56,708.90	\$57,090.25	\$55,716.50	\$29,654.25	\$45,377.67	\$26,880.75	\$23,079.00
		\$3,598.74	\$10,946.90	\$10,041.72	\$2,436.50	\$511.00	\$107.50	\$40.00	\$10.00
\$15,535.00	23,307.49	22,954.81	5,284.30	8,613.98	2,539.95	3,637.68	125.20	92.75	5.00
		4,406.99	10,960.71	15,405.74	6,914.00	1,718.75	837.90	453.00	160.00
					19,000.87	18,550.51	3,598.92	15,454.45	63,792.45
							18,904.60	41,459.33	63,792.45
								84.00	180.23
								3,183.40	1,032.83
								1,032.62	3,495.00
								143.09	428.23
		142.06	37.56	76.62	456.73	392.50	85.33		
\$21,258.22	\$37,303.24	\$61,448.60	\$84,038.90	\$91,302.42	\$91,550.59	\$71,356.78	\$73,151.26	\$88,823.43	\$92,182.74
50c.	25c.	25c.	25c.	25c.	25c.	25c.	25c.	25c.	25c.
50c.	\$2.00	\$2.00	\$4.00	\$4.00	\$4.00	\$4.00	\$5.00	\$3.00	\$3.00

NUMBER OF MEMBERS IN GOOD STANDING.

years is shown by the following table:

	1904.	1905.	1906.	1907.	1908.	1909.	1910.	1911.
.....	7,410	11,140	11,126	9,853	7,586	7,390	6,629	6,158
.....	9,680	7,573	4,856	9,369	6,277	9,129	7,663	5,825
.....	17,090	18,713	15,982	19,222	13,858	16,519	14,292	11,983
.....	4,239	2,783	3,491	1,936	1,538	991	868	
.....							1,980	
.....	21,329	21,496	19,473	21,158	15,496	17,510	17,140	

by F. C. Ullrich, the general organizer. The department had occupied itself chiefly with the revivification of moribund local organizations of druggists, with the spreading of the propaganda in behalf of official medicaments and fraternalism, intra-professional and inter-professional, with collections and rendering assistance in State legislative efforts.

Five and six men were in the field, their efforts securing funds to the amount of \$35,869.54 for the association, \$23,254 as dues and \$12,615.54 for subscriptions to *Notes*. In carrying out its work the department had expended \$20,227.44.

It was the belief of the general organizer that the field force should be increased to ten active men and that he should assist by direct field work.

REPORT OF THE PUBLICITY DEPARTMENT.

C. M. Carr, editor of *N. A. R. D. Notes*, and director of publicity for the association supplemented Mr. Potts with an account of the year's doings in his department. Because of the enforced brevity the report this year did not include a tabulation of earnings. However, it was pointed out that the net earnings of *Notes* had increased from \$3,728.39, in 1908, to \$18,540.55 during the past year, the total earnings in three years being \$48,892.06.

In addition to the publication of *Notes* the department had prepared articles for publication in the public-press, compiled data for use at inter-professional meetings and farmers' institutes, and generally assisted druggists to promulgate desirable publicity.

In conclusion, the report read as follows:

In passing these facts will be of interest as showing progress in the work of the department:

The pre-convention number of *Notes* this year was a 168-page book, including covers, or 32 pages larger than the largest number ever previously issued. It carried more advertising than any previous number ever issued.

The subscription receipts for 1911 show an increase of \$1,060.33 over 1910, and the advertising receipts show an increase of \$5,818.34 for the year just closed over the previous year.

The net cash or surplus shown by the department's balance sheet for the year is \$18,540.55, or an increase over the previous year of \$3,301.56. This is a gratifying showing when we consider that expenses have been largely increased by improving the reading matter contents of *Notes*, installing a weekly cartoon service, increasing the number of paid news correspondents, more profusely illustrating our reading matter, the establishment of a free help wanted and situation wanted department, etc.

It must be remembered in connection with the foregoing facts that *Notes* has the valuable aid of the organizers in the field and that the expense of their maintenance is not charged to this department.

My recommendations are:

First, that *Notes* continue its aggressiveness in support of the policies adopted at each succeeding convention of the *N. A. R. D.*

Second, that the present advertising committee be thanked for their services, and that the advertising committee be continued.

Third, that work of the department dealing with public education be extended through the creation of a public relations committee of the *N. A. R. D.*, of which the director shall be an ex-officio member.

Fourth, that all other matters connected with the administration of the department be committed to the executive committee.

Together with the general report the supplements to the secretary's report were referred in the usual manner, the readers being thanked for their brevity.

At this juncture T. S. Armstrong made a preliminary report for the committee on credentials which was duly received.

ADVERTISING IN NOTES.

The selection, solicitation and supervision of the advertising matter published in *Notes* was the subject of a report presented by J. F. Forbich, of Illinois, chairman of the association's committee on advertising. Mr. Forbich told of a year quite uneventful to the committee because of the solidity of the existing plan for censoring the advertising pages of the association's journal. The committee, the secretary and the editor, he said, were quite in accord in their views upon desirable advertising; so well did they agree that the committee left entirely to the officers named the disposition of medical advertisements of a type agreed upon as unfit.

Despite the more liberal policy now obtaining in the matter of advertising censorship, Mr. Forbich declared, the advertisements submitted for publication in the pages of *Notes* were more rigidly scrutinized than were those of any other drug journal. Because of this, he said, a large amount of business was refused; nevertheless the financial returns were very gratifying.

The committee expressed its surprise at the condition

that the more ethical manufacturing firms left aggressiveness in advertising to the less worthy concerns. It was the opinion of the committee that if the reputable pharmaceutical houses, the manufacturers of apparatus, and the importers of specialties would devote a little more attention to advertising to the drug trade, with a corresponding decrease in their advertising to the medical profession, druggists would extend to them a wider, stronger support which would assure better conditions in pharmacy as a whole.

The committee had no recommendation to make relative to any change in the methods of advertising censorship.

The report was referred to the committee on resolutions.

In the absence of J. W. Errant, general counsel of the association, the following report of the legal department was read by J. C. Wallace, of Pennsylvania:

REPORT OF THE LEGAL DEPARTMENT.

Your general counsel realizes that all that he can hope to accomplish in the matter of presenting a report will be to give a general outline, as it were a sketch, of the work of the legal department during the past year.

GREATER LEGAL DEPARTMENT.

The action of the executive committee following the resolutions adopted by the Pittsburgh convention and formulated at the midyear meeting of that committee has very much enlarged the work of the legal department. The report of the executive committee gives you some idea of the various fields of work which the greater legal department, as outlined by the executive committee, is expected to cover. In brief, that decision means nothing less than a well-organized effort to put at the disposal of our affiliated associations and our dues-paid members the services of the legal department of the *N. A. R. D.*

NEW MOVE APPRECIATED.

That the new move of the executive committee has been very much appreciated is evidenced by the extensive use which has been made of the legal department. The applications coming from associations and especially from members have been quite numerous in the past, but the stimulus of the announcement that the *N. A. R. D.* had created a greater legal department has caused associations and members everywhere to call upon the legal department in numbers steadily increasing with each month. It has not been a question of merely answering some letters. It often means in one case a considerable correspondence resulting in the exact information required or in the doing or attempted doing of some effective piece of work to meet the particular case. The list of subjects presented to us calling for correspondence and assistance of various kinds is a very extensive one indeed.

CO-OPERATION WITH STATES JUST BEGUN.

As the greater legal department was not decided upon by the executive committee until the time of the mid-year meeting, your general counsel did not have the opportunity to co-operate with the various State associations as he should like to have done, but in a number of instances his services were called for and given even to the extent of his being sent to a State capital.

I am happy to say that our services along this line seem to have been very much appreciated and the appreciation expressed indicates that by undertaking this work of co-operation with our affiliated associations, State and local, we are entering upon a most interesting and important field and one which, we believe, will produce far-reaching results. The correspondence with officials of associations and pharmacy boards already indicates the possibilities.

ARTICLES IN NOTES.

As was formerly the case, so during the past year your general counsel has been a regular contributor to *Notes*. During the past year he has made it his object to present to the readers of *Notes* articles which present the larger phases of the work undertaken by the *N. A. R. D.* In these articles he has discussed the meaning and outcome of various movements for which the *N. A. R. D.* stands. He has also reviewed a number of very important decisions rendered by the courts. During the last few months he has employed the space allotted to him in *Notes* by presenting the needs and scope of a legislative conference to be held under the auspices of the *N. A. R. D.*

I am gratified to say that my labors along these lines have resulted in the calling of the legislative conference held in connection with this convention.

COMPENDIUM OF PHARMACY LAWS.

In 1908 I prepared, at the instance of the executive committee, my Compendium of Pharmacy Laws of the United States. This booklet placed before the pharmacists of the country the various State laws relating to the practice of pharmacy. The first edition was very quickly taken up. It is believed that this compendium has had a most helpful influence in suggesting legislation and in emphasizing the great need that exists for making uniform and more up-to-date the pharmacy laws of the various States.

For a number of months past I have been at work on a revision of my compendium. This brings the compendium down to September 1st, 1911, and incorporates all amendments made by State legislatures during their recent sessions. The compendium can be obtained at the convention by making application to the officers in charge of our publications.

NATIONAL LEGISLATION.

The reports of your officers and the committee on legislation have dwelt to a considerable extent on various matters which

interest us in the field of national legislation. Among these are bills now before congress calling for the amendment of the pure food and drugs act, the patent laws and also legislation relating to interstate traffic in narcotics. These are all exceedingly important measures and must be thoroughly studied by us in order that we may be correct in our attitude toward them.

AMENDMENT TO SHERMAN LAW.

Your general counsel feels that the opinions of the supreme court of the United States in the Standard Oil and American Tobacco Company cases have thrown no light on our problems. Nothing less than an entirely new law to take the place of the Sherman law will meet the situation, and when the conferences are held to determine the nature of the new law we must be present and see to it that our particular problems are taken into consideration and covered by the new law.

THE WOOD ALCOHOL PROPOSITION.

Soon after the adjournment of the Pittsburgh convention I took up the resolution of that convention with reference to the adoption of the name "wood naphtha" in place of the names "wood alcohol" or "methyl alcohol." From my investigation I concluded that this was a matter to be taken up by each individual State and Notes published the bill suggested by me for adoption by the various States.

CONSTITUTION AND BY-LAWS FOR AFFILIATED ASSOCIATIONS.

For some time past I have been at work on a draft of a constitution and by-laws for affiliated associations. As soon as this draft is in shape it will be submitted, and it is hoped that it will be helpful to associations just adopting a constitution and by-laws and also to associations desiring to make changes in such constitutions and by-laws as they may now have.

THE PAST AND THE FUTURE.

Your general counsel has always enjoyed the work which he is doing for this association. He feels that twenty years of service in the cause of the retail druggist have placed him in a position to understand thoroughly and sympathetically the life and work of the retail druggist. In fact, he feels that in his capacity to render sympathetic service there lies a large part of the strength which he has been able to give to the cause of the retail druggist. For all that your friendship and loyal support has meant for me in the past, I thank you.

The development of the greater legal department has very much enlarged my field of work. The new duties mean enlarged responsibilities. The new duties mean the facing of constructive tasks which will tax to the utmost whatever ability has been given me. I shall need your patience and forbearance. I shall seek your aid and your co-operation. I shall ask this of you in behalf of the cause in which we are all interested and for which we have enlisted. And as I face the larger tasks I give you my pledge that I shall, in the future as in the past, give to the cause the best that is in me with an eye single to your best interests and always having in mind the advancement of the cause of pharmacy.

This report being a supplement to the report of the secretary was referred with that communication.

Several additional resolutions were presented by title; the assistant secretary made some announcements; the chair stated the time for the organization meetings of the committees on resolutions, nominations, and finance; and the sitting was adjourned at 4:22 o'clock.

FOURTH SITTING.

Wednesday Forenoon.

The fourth sitting was begun at 10:10 o'clock Wednesday morning, the first order of business being the reading of the report of the committee on fraternal relations. This report, which was read by Herman Koester, of Texas, a member of the committee, had to do entirely with the question of Sunday rest for druggists. In it were recounted the action of the Pennsylvania and the New Jersey State associations which at their 1911 meetings urged their members to close their stores, partially at least, on Sundays. There were also reviewed the utterances of several prominent pharmaceutical workers who had endeavored to point out the unwisdom of working all day Sunday. The report concluded thus: "Brother pharmacists: We believe the time has arrived for the general adoption of the Sunday closing plan, and therefore we earnestly appeal to you, to every individual member of our profession, nobly to do your part toward the proper observance of the day of rest."

The report was referred in the customary manner.

J. G. Bone, of Pennsylvania, spoke for several minutes in behalf of Sunday closing, and to point out the benefits of the Sunday rest.

A few announcements were made by the assistant secretary. T. S. Armstrong made a second preliminary report for the committee on credentials.

TELEPHONE CONDITIONS.

As the next order of business came the report of the committee on telephones. This was presented by Chairman Wilhelm Bodemann, of Illinois, and was as follows:

Chemistry presents many incompatibilities, but none so incongruous, none so unexplainable, so unfathomable as arise in the study of the telephone question.

In spite of the widely read advertisements in Notes, appealing to the support of our people, asking for their help to spread the pay system, in spite of personal letters to our organizers, to local secretaries and in spite of our attempts in other directions to have a full report on the present telephone situation from the different local associations, the answers we received were so few that we can as well say we received none—except the one so familiar to readers of Poe, "Quoth the Raven: 'Nevermore.'"

When we directed our efforts for information through other channels, we were as much as told by the telephone companies that there was no information available, and yet we did not seek this information for any other purpose than the one that called our committee into existence, the spread of the pay phone system.

EDUCATION NECESSARY.

We are amazed at this condition and again come to the conclusion that the telephone companies, as well as the druggists, need this campaign of education. When we consider that the druggists of Chicago alone made several millions of dollars by this innovation and that the company made two to every one we made, we can not conceive how druggists and telephone companies in other cities can shut their eyes toward this available improvement of the service as well as the finances of both parties to the deal.

May we view this tragedy from a physiological, psychological, pathological or purely financial viewpoint; under the pure food act we can not find the proper label for this disease, if it is not shortsightedness, crosseyedness, astigmatism, or color-blindness.

RECORDS UNAVAILABLE.

We have been in hopes to give this year a full and complete record of the conditions in all leading cities, the above is the reason why we failed.

EXPERIENCES.

Let us quote a few instances of our experience. In one city, which unfortunately has two companies, we succeeded in a most unparalleled manner to have all druggists sign up for the pay system, and they did so without any help, except advice from your committee and your organization force. When the day came to install the service, the second company got the newspapers of the town to kick up a terrible rumpus and for a week or two there was the dickens to pay. Then the druggists got cold feet and the booths, already installed in the stores, went out and that was the end of it. It is our honest conviction that had a man been on the ground to instill backbone into the spinal cords of our people, they would to-day enjoy the same privileges as those cities do who have installed the pay system.

Another city applied to us for assistance and advice. We succeeded in getting from the telephone company in that city a fair proposition, which was sent to the association officers. One of these officers went out on a three months' vacation, another officer's term expired and after months of correspondence, it was ascertained that the company's proposition had been sent to the officer on a vacation, returned to the officer who had stepped out and that, as a matter of fact, the document got lost in the shuffle. A copy of this proposition was obtained and sent out to this city and we did not hear a word until about twelve months later, when we learned that the system had been installed, proved a big success, but not a word was sent to your committee. Pray, in all fairness and decency, what would you label such brilliant eruption of indifference?

Another city saw the ads. in Notes, concluded that they wanted the pay system and got it.

Here are three typical cases of the job lot of varieties of the fifty-nine varieties of our experiences.

Now comes a refreshing picture from Baltimore. Mr. Kahn is the artist who deserves great credit for his part.

Baltimore with 350 druggists suffered all kinds of deadbeat conditions regarding telephone service and now let me quote Mr. Kahn, the artist of this Baltimore picture: "Some were paying a large rental and had no income, while others were getting a small percentage. Through the good work of the N. A. R. D., I got our local committee together and after a great many meetings with the telephone company, we managed to get slot machines for every druggist, and after many more meetings, in June, 1910, we got 20 per cent. on all coin taken in."

What seems singular is that the treasurer's report does not show Baltimore as contributing liberally, taking into consideration the excellent results accomplished on 'phone matters alone. Are the druggists really appreciative? If not, what's the cause? Kahn, Hynson, Williamson, and others are good association men, and as Baltimore druggists have been shown what can be done, we hope next year will see Baltimore represented by double its present membership.

Our friend Kahn is deserving of special mention for his earnest endeavor to improve conditions in Baltimore.

KANSAS CITY.

A demonstration of the druggists' influence and strength was manifested at Kansas City a few years ago. At the time referred to, the Bell Telephone Company had a monopoly and took it upon themselves to demand rates of the druggists, which were considered unreasonable. As chance would have it, an independent company was scratching for a foothold and the druggists took upon themselves the responsibility of throwing out the Bell phones and installing the independent. In the matter of one short year, the subscribers of the independent company exceeded those of the Bell and it is generally conceded that it was the druggists who made it possible.

This brought two telephone companies into the field, which in later years has been recognized as inimical to the best interests of all concerned.

The general organizer, when last in Kansas City, succeeded in bringing the two warring factions together and an understanding was arrived at. To-day efforts are being made to consolidate the two companies under the Bell management and

the druggists are co-operating with this end in view and when the consolidation is brought about, which from statistics at hand, looks favorable of being done at an early date, the druggists will have the slot phone under a favorable arrangement.

DALLAS, TEXAS.

Dallas, Texas, offers an excellent opportunity to bring about the installation of the slot phone, although a former attempt failed, but that was before the N. A. R. D. organized the druggists this year into an active local association. All the Dallas retail druggists are receiving Notes and are learning the error of their way, besides the telephone management is friendly and if we had some man familiar with the organization game who could spare a couple of months, he undoubtedly would bring the warring factions together and the druggists would live happily ever afterwards.

REACTIONARY METHODS.

Last year's convention enjoined our committee chairmen to cut it short in our reports. We shall try to do so, but we must mention this matter of public utility commissions in different States. Telephone companies are put down as common carriers and these commissions are to establish as low rates as possible. In several States these commissions are now at work and I will explain verbally some of the peculiar features of this two edged sword and this explanation will account in some measure why it is not expedient to press our claims at this present stage of the game, and after this verbal explanation you may perhaps account in some measure for the latest development—the apparent attempt to cut down established rates or commissions.

The first we heard of this was in Brooklyn, then Buffalo and then Rochester. Buffalo has applied the correct remedy, a stiff, concerted upper lip and a corresponding stiff vertebra, nursed by an able local committee and an N. A. R. D. organizer, and if they succeed in discovering a serum to equip the rank and file with unanimous opposition, we are of the opinion that the new discovered serum for the upper lip should be named after the Buffalo committeeman, Smitherine, and for the vertebra, Stoddartine, and we don't care if they take out a patent and command a big royalty for the stuff that brings the stuff.

WHAT IS NEEDED.

We can not remain idle towards this new danger and we recommend that the executive committee in conference with the telephone committee devise means and ways to head off this encroachment. We druggists have pulled the chestnuts out of the coals for the companies repeatedly and are entitled to better treatment than cutting down rates. We want an upward, not a downward, revision of telephone commission tariff and we venture another recommendation—a repetition of a similar one made every year. We urge the executive committee, in connection with the incoming telephone committee, to establish a telephone department in our organization department, a one man affair.

One man, experienced in the arts of a shrewd traveling salesman, conversant with the trade and the telephone situation, should have charge of the active propaganda, under the lead of the national telephone committee. This man should be young in years, old in experience with men and affairs, be a man of character, good personal appearance, diplomatic and wide awake. He could and should go out to the cities needing him and direct the campaign by personally keeping the forces together.

This telephone organizer should not be a telephone man, but should be an N. A. R. D. telephone organizer, and our executive committee, in connection with the telephone committee, should again try to make the telephone company pay for this part of the organization, for merely telephone benefits. As we stated before, to every dollar we make, the company makes two and three dollars and we should see to it that he who dances pays for the fiddler.

How this can be brought about, we earnestly beg the new executive committee to study and not to be discouraged at the failure of former attempts to solve the problem.

ORGANIZER NEEDED.

The great trouble is that our people in different cities are not a unit. Several large cities are ready to put in pay phones, IP (this significant big, little word) a few downtown men are willing, but these big downtown men are not willing for the same reasons as they were and are unwilling to adopt full prices, they want to be cutters for advertising purposes. These men should be either won over or shown by an object lesson that they can be gotten along without.

We hope that the system can be installed without them and if done by our prospective organizer, these big stiffies would soon come into the reservation and make a great deal more money by being good, rather than being ugly Indians.

Since the late, lamented MacDonald is no longer our mainstay, your committee has more than ever been compelled to lean on the national office and it is only due our able secretary, T. H. Potts, and since it comes under the organization department, especially due to our ever willing, ready general organizer, F. C. Ullrich, that we publicly and emphatically file and register our most sincere appreciation of their help. Both officers have repeatedly called with your chairman on the Chicago telephone officials, who advised and helped us in our efforts to grant other cities the same splendid privileges that Chicago enjoys since 1895. If we succeeded only in part, fate was against us, in partnership with that unspeakable indolence and unfathomable lethargy exhibited by the retail drug trade. Had we offered them a gold brick, we believe they would have jumped all over themselves to come in, but alas, it was not thus to be.

In connection with his report, Mr. Bodemann presented two resolutions dealing with the telephone question, and these were duly referred.

As a supplement to Mr. Bodemann's report, D. J. Reese,

of Pennsylvania, a member of the committee on telephones, told of the conditions obtaining in Philadelphia. He quoted from a letter written by a telephone official in which it was pointed out that by adding a little to their telephone equipment many drug store proprietors would increase their income from telephone commissions several hundred dollars a year. Mr. Reese had tabulated the earnings of twenty drug stores before and after they had been equipped with enclosed booths and window booths. These figures showed that the telephone commissions were in some instances more than doubled, and even trebled.

In the Quaker City, according to Mr. Reese, the druggists are on good terms with both telephone companies, and the telephone concerns have spent over \$40,000 in the past eighteen months for improved equipment.

The committee on form of organization stated that it had nothing to report.

W. G. Freeman, of the Freeman Perfume Company, was introduced by the president and spoke on price protection. He opined that the general adoption of a certificate agency plan would result in the enrollment of all jobbers and retailers in opposition to price cutting. If the N. A. R. D., said he, will hallo loud enough for some such plan, manufacturers and proprietors will have to adopt it or be wiped out.

S. A. Eckstein, of Wisconsin, reported preliminarily for the committee on transportation, about the validation of reduced rate return certificates.

D. N. Robin, of Pittsburgh, Pa., president of the National Association of Pharmacologists, was introduced. He read an able paper on "The Conditions of the Drug Clerk," in which he held that it was better to be a satisfied employee than a bankrupt proprietor. Several resolutions embraced in the paper were duly referred.

A few announcements were made by the assistant secretary; several telegrams were read; another resolution was submitted; and the sitting was adjourned at 11:35 o'clock.

FIFTH SITTING.

Wednesday Afternoon.

It was 2.55 p. m. when the convention was next called to order, and the assistant secretary began the roll call of States to permit the presentation of resolutions affecting the plans and policies of the association. Because of the opportunities to offer resolutions at previous sittings there was but one presented at this time, J. C. Wallace, of Pennsylvania, submitting it.

REPORT ON NATIONAL LEGISLATION.

In matters of legislation the year 1910-11 had not differed much from previous years, reported the committee on national legislation through its chairman, W. S. Richardson, of the District of Columbia. As usual in congress as in the State law-making halls pharmacical interests had been affected in a large number of measures, and the committee, in its endeavor to safeguard the interests of the druggists in national legislative efforts and to lend aid in local and State legislative considerations, had been much engaged. In national circles, the measures given attention by the committee were: A bill regulating the pay and mode of appointment of pharmacists in the public health and marine-hospital service; several bills providing for a parcels post; several bills intended to reform the patent laws; a bill to create a department of public health; a bill to amend the Sherman anti-trust law; a bill to tax medicinal proprietaries; several bills to regulate the sale and transportation of narcotic and habit-forming drugs; and a bill to amend the pure food and drugs act. The committee had also given thought to the question of getting a distinctive official name for methyl alcohol.

Concerning these several matters the committee reported as follows:

PHARMACISTS IN THE PUBLIC HEALTH AND MARINE-HOSPITAL SERVICE.

This bill was pending during the last session of the sixty-first congress before the same committee as that of the public health department bill. There being no prospect of getting either one of these bills through the last session of congress, your committee made no further efforts to have the bill to regulate the pay and mode of appointment of pharmacists in the public health and marine-hospital service passed. We believe from the past year's experience that the best way to get proper recognition of the druggists in the government employ is to petition the president, clearly setting forth the humiliating position of the druggists in the government service. Your chairman sincerely believes that the president has no idea

that our profession is humiliated in the different departments in the manner in which it is to-day. Your committee is of the opinion that if the president knew the situation, he would recommend that congress take some action looking towards relief of the pharmacists in the different government departments.

PARCELS POST.

There were several parcels-post bills pending during the last session of the sixty-first congress, some of which were for a general parcels post, others for a limited parcels post, and still others for an experimental parcels post. Your committee kept a close watch over the post office appropriation bill while it was under consideration, for fear that the parcels post rider might be again attached to it in the same manner that had been done in previous congresses. But our good friends in congress seemed to be able to prevent this same old trick from being done. During the special session of the sixty-first congress these same varieties of parcels-post bills were reintroduced. While it was generally expected that no committee, except that one having charge of tariff bills, would consider any bills at this special session, yet almost without warning, your chairman learned that the post office committee would take up the subject of parcels post and give a public hearing on it. As soon as this became known your committee immediately set to work to prepare itself to oppose the parcels post; we appeared before congress at this hearing and explained to them why we opposed it. This hearing, like previous ones, brought out the combined force and power of national associations of business men representing the different kinds of business interests. The different representative business men pleaded very hard against any form of parcels post. It will be of utmost importance during the coming session of congress for this committee to keep a very watchful eye on these bills as your committee believes that the real promoters of this obnoxious measure are large commercial concerns who are determined to crush out small dealers all over the country and with the assistance of the government still further concentrate the trade of this country. This feature of the scheme was placed very forcibly before the post-office committee.

PATENT LAW REFORM.

There were several bills pending during this sixty-first congress in reference to making changes in the existing patent laws. While most of these bills proposed to change the working plans in the office of the commissioner of patents, one of them that was before the committee was the bill that we have so long cherished—to prevent a foreigner from getting more rights from this country than his country gives an American citizen. These bills failed to pass congress during the last session, but have been reintroduced together with our bill. Your committee reintroduced what was known as the Currier bill and believes that we should continue to ask congress to put a stop to this great injustice to American citizens, namely, the granting of more rights to foreigners having patents in this country than what their countries would give to Americans holding patents under their patent laws.

It has been rumored around the halls of congress that the new patent committee will make a strong attempt to reform several features of our patent law.

TO CHANGE THE NAME OF WOOD ALCOHOL.

A resolution to change the name of wood alcohol to "wood naphtha" is a subject that has required some study as to the best method of procedure and also as to the constitutional feature of it. Your chairman interviewed several government officials in regard to this, and while they agreed with him that it would be a good move and ought to be done, it being a new subject to them, they were not prepared to give him very much information. At first it was thought that an amendment to the pure food and drugs act covering this feature might be the easiest solution of it. After studying that point your chairman soon realized that owing to a number of court decisions on the pure food and drugs act, a bill to amend this act would probably soon be presented to congress, and if it should develop that it would be most feasible to attach the wood alcohol amendment to the pure food and drugs act, your committee thought that then would be the most opportune time to make the change. After corresponding with our attorney your chairman made some inquiries from a member of congress and learned that there could be no possible chance of getting a bill through congress at this session as they would not be able to take up and pass a large number of important bills then pending.

From the study made on this subject by our attorney he will probably be able to make some valuable suggestions as to the best way to proceed on this resolution during the coming year.

DEPARTMENT OF PUBLIC HEALTH.

There was pending at the beginning of the last session of the sixty-first congress a bill to create a department of public health. This bill had been given a public hearing in the previous session and was fully reported upon in last year's report of this committee at the Pittsburgh convention. Although this bill had very strong backing and a great deal of influence was brought to bear upon congress in its favor, still it failed to pass this session. As we have said before, this bill shared the same fate as many other important bills did. As this committee stated in last year's report, it cannot see why it is not feasible to have all matters pertaining to health combined under one bureau or department with the physician and druggist working in harmony, as the interests of each are closely allied, but do not trample on each other.

Your chairman has always believed that a closer union of physician and druggist is a material aid to both. This bill was reintroduced at the special session of congress and has the honor of being listed as bill No. 1 in the senate. This committee recommends that we should insist, provided this bill passes, that there be created a bureau of pharmacy and chemistry with a pharmacist at its head, and we believe that a strong effort will be made to pass this bill during the coming session. As science to-day is putting forth strong efforts in investigating the causes of diseases and how best to prevent

them, it has increased the necessity of combining under one head all activities relating to medical and pharmaceutical pursuits.

CHANGE IN ANTI-TRUST LAW.

Nothing was done during the past session toward taking up or considering any measure to amend the Sherman anti-trust law, for congress as well as every individual was awaiting with a great deal of anxiety to learn what the decisions in the supreme court would be on those important cases that were then pending. These decisions will probably determine just what future course shall be pursued, if any shall be taken, to amend this act. Our attorney will probably give a history of these cases and show how this decision affects the retail druggist and may recommend what is the best course to pursue.

TAX ON MEDICINAL PROPRIETARIES.

There was introduced during the special session of congress a bill which became widely known as the Sherrey bill and which affects every retail druggist in the United States. This bill proposed to revive that part of the old Spanish war tax which imposed a tax on all proprietaries handled by the retail druggist. The results of that tax are still fresh in the minds of all those who shared in the taxation. Through his loyalty to his country and his knowledge of the necessity of taxation on all kinds of business in war time, the druggist accepted the burden at that time without complaint. Now to reimpose this burden upon the already overtaxed and burdened druggist seems an unjust, unwarranted and unnecessary taxation. As soon as your committee learned of this bill they immediately put their machinery in operation to show their strong protestation against it and to use every possible means, if necessary, to prevent this burden being reimposed on the retail druggists. When you realize that there are over 400 members of congress who have a right to vote upon this measure and perhaps some of these strongly urging the passage of it, you can readily see the task that was before this committee to take up and defeat such a measure. This committee feels very grateful to a number of local and State associations who immediately took up this matter, offering their aid to your committee and also notifying the members from their districts that they were very much opposed to such legislation. This committee filed with different members of congress several strong petitions which it received from druggists in different States. While it seems that this bill will probably never be reported from the committee, it will be necessary for this committee and the retail trade to keep a close watch over it during the coming session of congress.

SALES AND TRANSPORTATION OF NARCOTIC AND HABIT-FORMING DRUGS.

During the last session of the sixty-first congress there were several bills pending to regulate the sales and transportation of narcotic and habit-forming drugs. One that was widely known and received the attention of the committee was known as the Foster bill. While this bill received much criticism, undoubtedly much of it came from misunderstanding the motive of the bill or perhaps from someone who might possibly be hurt. This bill, which originated in the State department, had for its purpose the restriction of the sale of narcotic and habit-forming drugs while in interstate commerce, and did not restrict local sales within a State, as all such sales are subject to regulations prescribed by the State itself. This bill seemed perhaps a little severe at first, but experience has proven that there must be some perfect method to determine who should sell these drugs and also to know whose hands they pass through. It was brought out at the hearing on this bill that 75 per cent. or more of the morphine that was sold was used outside of legitimate medicinal purposes. There is every reason to believe and good evidence to show that this abominable traffic had been carried on outside of the retail drug trade. This bill would have confined the sales and uses of these drugs to the retail drug trade and for strict medicinal purposes only.

The transportation of these drugs in interstate commerce without registration or identification has handicapped many States which have most admirable laws for controlling the traffic in these drugs. The president in his special message to congress requested that a suitable law be passed to regulate the traffic in these drugs. The bill to regulate the sale and transportation of narcotic and habit-forming drugs came up for a hearing before the ways and means committee during the last days of the sixty-first congress. While it was opposed by certain interests who did not deny the necessity for regulation of the traffic in these drugs, it was claimed by them that it placed a burden upon dealers in the keeping of a record of these sales, as there were such a large number of remedies on the market containing various amounts of these drugs. Many authorities have stated that, if this bill had passed, the larger portion of these remedies would have either passed off the market or their formulas would have been so changed as to eliminate these drugs. This is probably true, as the tendency to-day even among physicians is to use less and less of narcotic drugs. This bill received strong endorsement from government departments and from a number of pharmaceutical associations. The necessity for some regulation by which the sales and uses of these drugs might be kept within their proper medicinal sphere was clearly set forth.

The chairman of your committee has every reason to believe that if the committee before whom this hearing took place had had time in which to frame a report on this bill it would have been in such shape that there would not have been the hardship on the retail druggist that many had been led to believe. The author of this bill and our association are in perfect harmony and this bill would have come from the committee in good shape. I want to say right here that the author of this bill does not want to impose any more work on the druggist than is necessary to prevent the indiscriminate sales and transportation of these abominable narcotic and habit-forming drugs. Information was given at the hearing showing that foreign countries were imposing restrictions on the sales of this

class of drugs and curtailing the output of them. Even China, who derived a great revenue from these drugs, is restricting the production of opium. I believe that there is a mutual understanding between all nations to use their utmost efforts to curtail the sales of these drugs. Why should we not fall in line and do likewise? As this bill failed to pass the last session it will be reintroduced into congress and the author of it, I am sure, will be glad to receive suggestions, as he has already requested this of your chairman. Knowing that we were to have a legislative conference during this convention, your committee thought it best to place this matter before the conference, believing that in this way many valuable suggestions would be brought out. Your committee believes that the passage of an anti-narcotic bill with proper restrictions will not only rid this country of a class of illicit dealers in this nefarious traffic who are worse than pirates, but it will also place both the medical and pharmaceutical professions on a higher plane.

AMENDING FOOD AND DRUG ACT.

The enforcement of the pure food and drug act has brought to our shelves a higher class of drugs and chemicals than ever before, and which we are selling to-day with a feeling of security and confidence that they are of the proper strength and purity. But owing to a number of recent court decisions this act has lost a great deal of the force or protection that it was supposed to have in protecting the public against the false claims of nostrums which druggists have always protested against and which the country is flooded with. The public can be imposed upon just as much by false claims as it can by drugs that do not come up to the standard required by the pure food and drugs act. During the special session of congress a bill was introduced by Congressman Richardson to amend the pure food and drugs act. While this bill takes up several features of the pure food and drugs act, one strong feature in it is that it would probably be a severe blow to nostrums that make outrageous claims as to their curative properties. It seems to your committee that a regulation of this kind cannot hurt an honest medicinal preparation. It looks as if it would be an invitation to the manufacturers of fake remedies to get off the earth.

We think that during this coming congress we should take up this pure food and drugs act, as now is the time to take action if there be a necessity for strengthening any weak points that may exist in it. This act undoubtedly is of vital importance to the retail trade and something should be done, for as it now stands it seems that any person can make any concoction and make any claim that he may choose on labels, or on circulars, by advertising, or in any other way, and still be immune. We must at the same time in making our ethical preparations see that they conform in every particular with the standard laid down by the U. S. P. and N. F. While this bill will probably meet with a great deal of opposition from certain quarters, your committee does not believe that this proposed bill can hurt simple household remedies that are put up by druggists, as they seldom make any claim other than that they are certain remedies for certain ailments. The druggist has always been up against those unwarranted claims of certain preparations that he is obliged to carry in stock owing to the publicity which they receive by advertising. Another feature of the bill proposes to place the manufacturing and sales of all medicinal preparations in the hands of pharmacists. This is strictly in line with the law governing the practice of medicine which properly places the prescribing and treatment of diseases in the hands of physicians. Another feature is that it greatly increases the list of drugs and chemicals that must be specified on the label. It is a question whether we should have a long list of drugs or a few of the more important ones exposed on the label to the public. While we make no recommendation on this we hope that the legislative conference will take up this feature as well as others that may be suggested. In amending the pure food and drugs act I think that we should go over it very carefully. With the experience of the past three or four years the defining of weak and strong points in this act, and with our knowledge of the working of the law, we are in a position to aid in amending it into a perfect law.

As the committee saw it, the legislative program of the association for the ensuing year should be based on the following recommendations:

That the committee on national legislation be appointed as soon as possible after each year's convention.

That we petition the president of the United States to request congress to take some action toward the relief of the pharmacists in the different government positions.

That all parcels-post bills continue to receive the vigorous opposition of the retail drug trade.

That the patent laws be amended in accordance with the well established views of the association as outlined in its conventions for several years.

That the association use its efforts to have passed an interstate anti-narcotic law, the terms of which will prohibit all illegitimate traffic in narcotic and habit-forming drugs and confine their sales and uses to proper channels and strictly medicinal purposes.

That we favor an amendment to the Sherman anti-trust law so that this act will not interfere with the welfare of the small merchant who seeks protection and not destruction from large monopolies.

That the bill to place a tax on proprietary medicines be vigorously opposed.

That the pure food and drugs act be amended so as to protect the public against unwarranted claims of nostrums and be further amended so that the manufacturing of medicinal preparations be in the hands of pharmacists.

It had been the committee's experience that organizations in other retail trades were more inclined to co-operate with the N. A. R. D. than the various drug organiza-

tions were to work in harmony. In the committee's opinion the coming year will be one of legislative moment to druggists, and it believed that the association should enter the field of legislative activity especially prepared for hard work. The report was referred as usual.

CONFERENCE ON LEGISLATION.

In accordance with the plans for the meeting, President Guilford at this time relinquished the chair in favor of Chairman Richardson and the sitting was resolved into a general legislative conference. In the absence of the general counsel, Judge J. W. Errant, F. H. Freericks, Esq., of Cincinnati, Ohio, officiated as legal advisor.

Parcels-post bills were first considered, but only briefly, as it was conceded that the opposition of the drug trade was so thorough as to preclude all discussion. There was no echo of the action of the Michigan Pharmaceutical Association in favoring the parcels-post project.

THE LABELING OF WOOD SPIRIT.

The next matter to be considered was the advisability and practicability of furthering legislation to assure a distinctive name for wood spirit. Secretary T. H. Potts said that he had been advised by Judge Errant that the feasible plan would be to secure State laws as to labeling. He thought the subject a most vital one and could see no reason for opposition to adopting the name "wood naphtha." Stewart Gamble, of Minnesota, stated that it had been no trouble to pass such a law in his State.

J. C. Wallace, of Pennsylvania, was opposed to any hasty action. He was in doubt as to the dangers of the external use of the spirit; knew that workers in the wood spirit industry suffered no injurious effects; and disapproved of the threatened injury to the considerable industry represented in the production of the spirit, if unwarranted.

T. S. Armstrong, of New Jersey, told of a case of blindness he knew to have followed the drinking of wood spirit. He had often felt the effects upon his eyes of burning the spirit in a lamp, and said that painters could not work long with varnishes containing the methyl variety of alcohol. W. C. Anderson, of New York, said that there had been many instances of harm following the use of wood spirit through a confusion of names. He did not believe that the changing of the name of the spirit would seriously affect the producing industry, and, at any event, the convention was concerned with the welfare of the public rather than that of any industry. S. N. Jones, of Kentucky, thought that the food and drugs act might be amended so as to afford some assistance. He cited the fact that the use of denatured alcohol in medicinal and toilet preparations is prohibited by the internal revenue department. F. W. Meissner, of Indiana, could imagine no argument in favor of the medicinal use of the spirit, even externally. It is not authorized in any official preparation and should be tabooed. As to the effect of a change in the name, he referred to the fact that under special names the spirit is widely sold at the present time. E. W. Sticky, of Indiana, said that to have saved the lives of five persons and the sight of another, all recent victims of wood spirit drinking in a small Indiana town, would have been warrant enough for any law that would safeguard the public in the sale of the spirit. Joseph Weinstein, of New York, referred to many poisonings by methylated "whisky" in this city. He pointed out that the dispensaries referred to blindness caused by the vapors from the fluid. Wilhelm Bodemann, of Illinois, said that a Chicago scientist was now blind because of personal experimentation with the effects of wood spirit.

Louis Emanuel, of Pennsylvania, suggested that the association ask the pharmacopoeial revisers to give wood spirit official recognition under the name "wood naphtha." B. E. Pritchard, of Pennsylvania, thought that all members of the association should be instructed to label each container in which wood spirit was sold "wood naphtha" and "poison."

ABOUT A DEPARTMENT OF PUBLIC HEALTH.

Mr. Freericks read the Owen bill to establish a federal government supervision of matters of health. Then, pointing out the importance of the project to pharmacists, he called the attention of his hearers to the fact that the bill extended no recognition to pharmacy, bracketed drugs with foods, and had no reference to chemistry. These points, and the apparently powerless condition in which the advisory board was left and the fact that no qualifications were fixed for the director, to him seemed worthy of discussion.

Mr. Wallace and Mr. Huhn were of the opinion that the bill should be condemned by resolution, and efforts then made to get a satisfactory measure. Mr. Anderson urged the association to demand recognition for druggists with the doctors in the proposed conference to formulate a practicable plan for the new department. J. F. Guerin, of Massachusetts, advised the druggists to oppose strenuously any tendency toward a one-man power. Get things your way first, said he, then favor the entire project. Thomas Stoddart, of New York, was in favor of combining the existing federal offices that have to do with matters of health, but did not approve of the formation of a new cabinet office.

C. M. Carr, editor of *Notes*, wanted to know if any druggist had ever gotten anything of benefit from local or State health boards. It was his opinion that no druggist wanted a federal department of health, but none would oppose it if pharmacy was properly recognized in its establishment. C. L. Hay, of Pennsylvania, said that the department of health would come in spite of any position taken by the association. The thing to do was to get a legislative committee that could and would "scrap" and "gouge" out what the druggists want.

Others discussing the Owen bill were Messrs. Shuptrine, Gladding, Meissner, Armstrong, and Richardson.

In introducing the subject of the interstate restriction of the narcotic traffic, Chairman Richardson said that the next session of congress would consider a measure very like the Foster bill, and it behooved druggists to look into the proposed features.

Mr. Stoddart wished to know why the attempt was made to place the supervision of the traffic with the internal revenue bureau. He thought that the State governments had sufficient power to regulate the traffic. Mr. Richardson explained that only the revenue bureau had an adequately equipped service for tracing shipments of drugs; and as this bureau has not police power it was necessary to include a license fee so as to give the bureau control through collections. He had been assured that the retail druggist's license to handle liquors would be extended to cover the handling of drugs.

Secretary Potts saw in this latter fact an opportunity to free the druggist from federal classification as a retail liquor dealer. But R. K. Smithers, of New York, was of the opinion that the liquor-dealer stigma was being over-worked chiefly by surreptitious sellers of liquor, and said that he sold liquor for medicinal purposes and would rather be licensed as a liquor seller than as a dope seller. Mr. Potts replied that there were many druggists who sold no liquor and objected to being taxed for handling alcohol.

Mr. Freericks explained in detail why the plan of placing the supervision of the narcotic traffic with the internal revenue bureau was decided upon and how this supervision would assist the State authorities in curbing the narcotic evil. Mr. Wallace saw in the plan a source of much aid to the State boards of pharmacy. Messrs. Armstrong, Walton, Wilson, Finneran, and Zuber also spoke.

AMENDING THE FOOD AND DRUGS ACT.

Mr. Freericks read the Richardson bill designed to extend the scope of the federal food and drugs act, and explained the import of the new provisions. There was no discussion.

The conference was thereupon dissolved; and President Guilford resumed the chair, subsequently adjourning the sitting at 5:40 o'clock.

OPEN MEETING OF THE COMMITTEE ON RESOLUTIONS.

Wednesday Evening.

In the customary manner of procedure the discussion of steps to be taken by the convention came about on Wednesday evening at an open meeting of the committee on resolutions. W. C. Anderson, of New York, chairman of the committee, presided; and E. F. Heffner, of Pennsylvania, acted as secretary. The meeting began at 8:10 p. m.

First to be considered were the recommendations in the president's annual message. None of these were commented upon when read by the secretary, with the exception of the suggestion that a contribution to the Procter memorial fund be made; this was commended.

QUALIFICATIONS OF DELEGATES.

Of the recommendations made by the executive committee, one only was discussed; that had to do with the definition of "actively engaged in the retail drug business" as

applied to delegates to the conventions. Chairman Anderson thought that the qualifications of the delegates would best be left to the delegating organizations, which should be instructed to select their representatives with care.

H. I. Leith, of Rhode Island, said that the credentials committee had once decided that an investor in the retail drug business was duly qualified. He thought that the delegates should be persons taking a part in the regular business of a drug store. M. A. Stout, of Indiana, and J. F. Finneran, of Massachusetts, expressed a similar view; the latter believed it best to put the decision up to the delegating body.

Commenting upon the recommendation by the organization department that more organizers be employed, J. F. Guerin, of Massachusetts, said that a personal talk by a field representative was immeasurably better than letters in arousing interest in local organizations.

SUNDAY CLOSING.

The matter of Sunday closing came up in a recommendation in the report of the committee on fraternal relations. W. E. Lee, of Pennsylvania, opined that this was entirely a matter of the individual. He told how he had secured Sunday rest for himself. B. E. Pritchard, of Pennsylvania, said that the reason for the recurrence of this question was because the druggist did not want to close. He had been unanimously opposed by his fellow druggists in an effort to make partial Sunday closing compulsory by law. Sunday work he declared was one of the chief reasons for the difficulty of getting high-grade apprentices; yet any druggist could close up if he would. In Pittsburgh, he said, the biggest stores are not open on Sundays, and are open only ten hours on other days.

H. B. Weaver, of New Jersey, and C. P. Gladding, of Connecticut, told that in their towns the druggists who wanted to get some rest on Sunday were doing so without losing any money.

ANTI-NARCOTIC LEGISLATION.

The consideration of the stand to be taken with regard to interstate traffic in narcotic and habit-forming drugs, brought out from F. A. Hubbard, of Massachusetts, a caution against too general terms in laws. He referred particularly to the undefined classification "habit-forming drugs," and thought that any proposed measure should specify the drugs referred to. Mr. Anderson thought that the list given in the food and drugs act with the addition of caffeine and perhaps one or two others, would be the ones included in an anti-narcotic law.

A Pennsylvania member expressed the belief that the habit-formers should be specifically named, as spirit of pepper mint and Hoffman's anodyne could justly be called habit-forming. J. F. Finneran, of Massachusetts, said that the "uplift" societies would make a strong effort to have the law embrace a large number of drugs, and it was up to the druggists to convince the law-makers that many of these substances were wrongly included among habit-forming drugs. The law, as he saw it, should be particularly specific.

RATIO OF REPRESENTATION.

Several propositions were passed without discussion until the matter of equalizing representation in the convention was reached. This had been broached in two resolutions, in one of which it was proposed that State and local organizations be required alike to pay dues of \$50 for each accredited delegate; the other limited the representation of State associations to two delegates, with dues of \$25 each.

At different times in the history of the association the pro rata contributions of State and local organizations have been changed and not both in the same proportions. This said Mr. Potts, had been protested against at various times, and it had been claimed that a State organization, because of its lower taxation, might get control of a convention were it desired. The national organization, he continued, needs the moral support of the State bodies, but one delegate from each with dues of \$25 a year seemed satisfactory to him.

Mr. Finneran thought that each State association should have three delegates so as to be represented on all convention committees in case no locals in the State were represented.

J. C. Wallace said that not now as in the early days did the N. A. R. D. need the financial support of the State associations; and he believed that the several State bodies should have equal limited representation. At the time of the Atlantic City convention he said that he, being presi-

dent of the Pennsylvania Pharmaceutical Association, was offered and declined an opportunity of seating another delegate on the payment of \$25. This financial basis for representation did not seem fair to him. The State associations were not strictly retailers' organizations, but should be affiliated for co-operation and each State should be on an equitable basis.

S. N. Jones thought that the only equitable basis for representation was a financial one. The N. A. R. D., he said, needs all the money it can get, and the small contributor should not have equal say with the one paying much more.

Mr. Meissner did not see where there would be any material decrease in the income of the association under the proposed limited representation; but he did believe that to have the representation on a financial basis made possible political manipulation. As the matter stands, he declared, local organizations are able to and do get representation cheaper by contributing through State associations. Mr. Mann believed that the limited representation plan was a happy solution of an oft-recurring problem, and would make little difference in the aggregate representation.

R. K. Smithers thought the plan illogical as representation should be on a basis of population. He did not think much of free moral support. His favor went to a plan with a numerical basis, as he believed that the non-retail members of State associations should contribute to the support of the national body. C. L. Hay was of the opinion that the smaller State organizations would be stauncher affiliates if they knew they had an equal voice with the larger ones. T. B. Cartmel, of Delaware, expressed the opinion that the present plan was best for the small States.

W. S. Elkin supported the proposed limited representation plan on the ground that it was modeled after the plan of the federal government, the representatives of the States being on a par with the senators, the delegates from the locals squaring with the members of the house. The question as he saw it was one of equal representation not of money. T. F. Cannon said that the Chicago delegates who were the sponsors of the equal tax plan were willing to accept the limited representation feature with equal taxation.

DATE OF MEETINGS.

Mr. Cannon was the first to discuss the proposed change in the time of holding the annual meetings, and favored an earlier date so as to take advantage of the business quiet incident to the vacation time and also to let the delegates be at home when the traveling men began their rounds and the school season was at hand. I. M. Light added that an earlier date would ensure vacation rates on the railroads. But Mr. Finneran thought that this would be offset by the difficulty of getting hotel accommodations.

Messrs. Wallace, Bodemann, Heinritz, and Bone offered reasons for a change to an earlier date.

PRICE PROTECTION.

Two plans were submitted as affording a legal and practicable means of preventing price cutting. One was a coupon rebate plan hailing from Illinois, the other a similar but coupon-less plan similar to several now in limited use. J. J. Boehm, of Illinois, the father of the first plan, advocated its approval as a necessity, a stable means of protecting retail prices and not in conflict with court decisions. He could see no obstacle to the adoption of the plan except the retailers, but these he believed would soon see the wisdom of accepting the plan, and then the sincerity of proprietors would be put to the test.

This plan was similar to one advocated eight or nine years ago and it proposed to make the N. A. R. D. a clearing house for coupons returned by retailers.

The matters of dispensing by physicians, the sale of liquors in "drug-store" saloons, and the refilling of prescriptions were considered rather briefly.

ENDORSEMENT OF DR. WILEY.

Relative to a resolution endorsing the efforts of Dr. H. W. Wiley, Mr. Hay said that, while all druggists were in sympathy with the endeavors of Dr. Wiley they should not too readily commend him because of his drastic opposition to all ready-made medicines. J. P. Crowley, of Illinois, said that Dr. Wiley had given druggists a great deal of trouble in the past year and had called them law-violators in published articles, hence he should not be unqualifiedly endorsed. Edward Williams, of Illinois, thought that the proposition to endorse Dr. Wiley was premature and presumptuous; and Mr. Cannon thought that to endorse the

Doctor personally while his actions were being investigated officially would be out of place.

W. E. Lee, of Pennsylvania, told the meeting that it could not go astray in endorsing Dr. Wiley; and another Pennsylvania delegate urged that the Doctor be given full credit for what he had done, the personal feelings of those who had felt his hand notwithstanding, as he stood for purity in drugs.

C. A. Storer, of Illinois, explained how the Chicago druggists had been put in a bad light in ice cream suits that had fallen through.

Mr. Anderson was opposed to taking sides in a political mix-up; and Mr. Finneran was for leaving the question to the federal officials. Mr. Bone wanted Dr. Wiley to get full credit; and Mr. Emanuel declared that the association could not afford not to endorse the Doctor. Mr. Meissner looked upon a failure to endorse Dr. Wiley as a calamity; and L. L. Walton called such a neglect a positive shame.

A baker's dozen other propositions were passed without discussion; and the meeting adjourned at 11:20 o'clock, having considered thirty-seven matters of policy.

SIXTH SITTING.

Thursday Forenoon.

It was 10:10 o'clock Thursday morning when the convention next assembled for regular business. The first matter taken up was the reading of the report of the auditing committee by Otto Groenland, of Ohio, chairman. This report showed that the financial records of the association had been audited by a regular auditing company at an expense of \$250, the committee believing that this method was the most satisfactory. Everything had been found in a gratifying condition. The report was duly adopted.

Several communications were read by the assistant secretary. And S. A. Eckstein, reporting finally for the committee on transportation, said that 178 return certificates had been satisfactorily passed upon by the validating representative of the railroads.

REPORT ON PHARMACY LAWS.

M. S. Kahn, of Maryland, chairman of the committee on pharmacy laws was not able to attend the convention, and the report of the committee was read by Assistant Secretary Rothwell. The committee stated that the legislative results of the past year were for the most part amendments to existing laws. These had been made in Florida, Illinois, Indiana, Michigan, Mississippi, New York, North Carolina, North Dakota, Ohio, Tennessee, and Vermont. A synopsis of the new laws was given.

The report also told of the activity of the Louisiana Board of Health in matters of drug quality, and the enforcement of the "shorter-hours" law in California.

It was suggested that the association's legal department aid in securing harmony among the State pharmacy laws, with a higher standard in pharmacy and better preliminary education. The members were urged to get able men on the boards of pharmacy; to restrict the practice of pharmacy in small towns by physicians; and the drug pedler was characterized as a worse evil than the dispensing physician.

The report was referred in the usual manner.

Reporting finally for the committee on the form of organization, T. S. Armstrong said that that body had no recommendation to make. This report was received.

Mr. Armstrong then reported finally for the committee on credentials, announcing that 223 delegates representing eighty-four organizations were entitled to votes in the convention.

To bridge a hiatus occurring at this time President Guilford called upon the representatives of the pharmaceutical press who responded with brief talks, in the following order: Mrs. Leslie O. Wallace, of the *Pharmaceutical Era*; Hugh Craig, of *THE DRUGGISTS CIRCULAR*; C. A. Mayo, of the *American Druggist*; E. D. Irvine, of the *Western Druggist*; John Helfman, of the *Bulletin of Pharmacy*; L. R. A. Suppan, of the *National Druggist*; and B. E. Pritchard, of the *Western Pennsylvania Retail Druggist*.

A. H. Beardsley, of the Miles Medical Company, was called to the platform, and expressed his gratification at the signs of the druggists' awakening to the folly of price cutting.

J. G. Bone read a letter from the general secretary of the Lord's Day Alliance of Canada; and the communication was duly received.

Secretary Potts voiced an appreciation of the aid ex-

tended by the exhibitors at the convention and they were formally thanked.

Chairman C. H. Huhn of the nominating committee reported as the unanimous choice of that body the names of the following nominees: For president, H. C. Shuptrine, of Georgia; for vice-presidents, T. B. Cartmell, of Delaware; E. A. Bernius, of Missouri; and S. A. Eckstein, of Wisconsin; for secretary, T. H. Potts, of the United States at large; for treasurer, H. I. Leith, of Rhode Island; for members of the executive committee, C. H. Huhn, of Minnesota; H. W. Merritt, of Pennsylvania; H. B. Guilford, of New York; J. A. Bean, of Massachusetts; E. H. Thiesing, of Ohio; and A. E. Zuber, of Illinois.

As a postscript to the report of the nominating committee, Mr. Huhn offered the following resolution:

Whereas, We learn with extreme regret that our esteemed co-laborer, Mr. Charles F. Mann, has decided to retire from the official family of the N. A. R. D.; and

Whereas, Mr. Mann has served this association as treasurer, president and chairman of the executive committee for so many years with such signal ability and faithfulness; therefore be it

Resolved, That with the passage of Mr. Charles F. Mann from the official life of the N. A. R. D. an irreparable loss has been sustained; and be it further

Resolved, That this association go on record as fully recognizing the great worth and appreciating the invaluable service of Mr. Mann to the N. A. R. D. and be it further

Resolved, That a copy of these resolutions be sent Mr. Mann as a slight token of our appreciation.

On motion the report of the nominating committee was received, the resolution included therein was adopted, and, the rules being suspended, the several nominees were elected by a ballot cast by the assistant secretary, the assemblage lead by Mr. Armstrong singing "So say we, all of us."

President-elect Shuptrine was introduced by Committeeman Merritt, who had been Rumor's candidate for the presidency, and voiced his gratitude for the elevation to office, promising to fulfil his duties as best hard work would make possible.

PROPAGANDIC WORK.

J. A. Bean, of Massachusetts, member of the propaganda committee, reported for that body in the absence of the chairman, J. G. Krul, of Kentucky. The report follows:

During the past year there have been ten letters sent to physicians, one each month, as during the previous year. These letters were printed on the first folio page of a pamphlet containing from eight to twelve pages. In each one of these pamphlets was also given an accurate description of three official preparations, including their pharmacological and therapeutic properties and characteristics.

The contents of these pamphlets have been published in Notes, practically in full, hence repetition here is unnecessary. The first issue of our journal, N. A. R. D. Notes, each month, prints the complete literature as it is sent to physicians as well as complete and reliable working formulas for the preparations to be exploited.

SATISFACTORY PROGRESS ESTABLISHED.

The report of the previous U. S. P. and N. F. propaganda committee made at Pittsburgh last year contained several valuable suggestions and recommendations regarding various factors affecting the propaganda work, and your present committee is pleased to note that some of these factors are receiving most extraordinary attention.

Among other things, protection to the pharmacist in his chosen art is to-day one of the burning questions in drugdom. The conference on legislation which our association has on the program at this convention undoubtedly marks the beginning of a better era for the pharmacist. The unjust and often illegal competition to which pharmacists are subject is a matter of great concern to our profession, and when part or all of this competition is removed, propaganda matters are bound to receive a decided impetus. We would therefore urge all of our members who have aught to do with legislative matters, to use every honorable method in their power to throw a mantle of protection around our chosen profession with the ultimate view of making our calling one for pharmacists only.

MEDICAL DISPENSING.

It is also noteworthy and important to give expression to the very excellent and praiseworthy motive that led to the approval of the following recommendation by the section on pharmacology and therapeutics of the American Medical Association at its 1911 meeting at Los Angeles, Cal.:

The proper selection, preservation, preparation, compounding and dispensing of medicine requires proper education and training not included in the courses of instruction given in medical schools, but comprised in the courses furnished by schools of pharmacy. Physicians are not trained to undertake the work of the pharmacists. However, as stated in the recommendation of the delegation, there are conditions existing which require physicians to dispense their own medicines. The section, therefore, recommends that physicians shall, as far as possible, relegate to pharmacists the dispensing and limit themselves to the prescribing of medicines; also that pharmacists place themselves in a position to act in co-operation with the medical profession by refraining from counter-prescribing, and recommend-

ing medicines for self-medication whether prepared by themselves or others.

Active propaganda work has now been carried on by this association for three years and we believe, to the best of our knowledge, that the progress made in this time is nothing short of marvelous. However, we realize that the work has only a fair start, and that results will continue to multiply as the years pass. The movement can be likened to an extensive advertising campaign, which in reality it is, and we must keep everlastingly at it.

SUMMARY AND SUGGESTIONS.

A careful summary has been made by the director of this department with a view of establishing the present status of this educational movement, a summary that is national in its scope and may truly be said to represent conditions as they are. The summary has been prepared from personal investigation and from conditions as they actually exist in the various cities and States.

First.—The number of U. S. P. and N. F. preparations called for in prescriptions has increased during the past two years. In some places the increase is not so pronounced, but in the majority of instances the average increase is from 25 to 50 per cent., surely a good showing. The observations in this respect establish the fact that the increase is in direct ratio as the amount of labor devoted to the work, thus emphasizing the fact that results only come by intelligent work and advertising.

Second.—Sampling the physicians, with the preparations as recommended each month by your committee, or with others, is very aggressively carried on in some localities, while in others this important work is somewhat or entirely neglected. It is significant to note in this connection that the greatest increase in U. S. P. and N. F. prescriptions is found in the localities where sampling is done regularly. It is strongly recommended, therefore, that ways and means should be adopted by local associations or individual members, looking toward a regular system of sampling physicians each month. Every local association can do it, and it is important, for it is one of the most convincing factors in the propaganda movement. "Get-together" meetings are also of incalculable value in developing a more harmonious feeling between members of the professions, and do much to render subsequent work more prolific and congenial.

Third.—The consensus of opinion among all pharmacists seems to be that the N. A. R. D. method of conducting the work with both physicians and pharmacists is the ideal method and deserves the support of every pharmacist. The greatest majority, however, are of the opinion that this work should be supplemented by work among the laity; that is, the druggist's customers. The method recommended is the distribution of such circulars, as the "Educating the Public" series, or such booklets as "About Prescriptions," "Things You Ought to Know," etc., all of which are published by the N. A. R. D.

This method gets right down to the real issue. It tells the public what's what in pharmacy; it educates them to use proper discrimination in the selection of a pharmacist or of a physician, and why this discrimination is necessary; it teaches the people the real difference in drugs and druggists, as well as the real difference in medical service and physicians.

This is the kind of work that really counts, for when the public knows what's what in pure drugs and medical service, then this same public may safely be allowed to select its own expert pharmacist and a good prescribing physician. This is not theory, but a method so intensely practical and full of common sense that it is slowly but surely revolutionizing the drug business in the hundreds of localities where it is adopted.

Such a method is strictly a foundational method, and well does it prepare the way for actual U. S. P. and N. F. propaganda work. In fact, it is creating a demand for official preparations and expert professional service, with the public at the creating end, the pharmacist and the physician merely meeting the public's demands. This naturally is the kind of knowledge that will enhance the value of propaganda work, and druggists generally are urged to adopt a similar method.

Fourth.—An attempt to locate the various handicaps to the ultimate and permanent success of the propaganda movement resulted in the discovery that five handicaps exist, and that the greatest of these was the pharmacist himself, for the simple reason that the pharmacist has the power to remove the other four if he so chooses.

The other handicaps are the unjust competition of the dispensing doctor caused largely by the activity of pharmaceutical and specialty manufacturing houses; the loose, indefinite laws that do not protect the pharmacist in his calling; the totally uncalled-for and criminal competition of the itinerant vender of medicines; and finally the apathy existing in many pharmaceutical and medical colleges.

However, it is apparent that the pharmacists can hope only through a powerful organization to accomplish these badly needed reforms. It resolves itself in the final analysis to this: Find out what we want and must have, and then fight for it to the bitter end.

This report was duly adopted; and the sitting was resolved into an open meeting of the propaganda committee. President Guilford relinquishing the gavel to Mr. Bean.

As a salutatory, Mr. Bean told what had been done in Boston during the past year to popularize official medications among the medical practitioners. The local druggists' organization had engaged a "detail man" who had made three calls on each of 500 physicians with an almost incredible increase in the prescribing of official preparations.

Another member recounted how the Ohio Valley Druggists' Association had spread the propaganda of non-secret medication among the physicians of Cincinnati and vicin-

ity. One of the features of this campaign was a "get-together" banquet.

From New York, Pennsylvania, the Middle West, New England and the South came testimonials of the efficacy of the propaganda in increasing the profits of the retail druggist. No member had a story of failure, and all were loud in praise of the work.

Mr. Bean turned over the chair to Vice-President Glad-ding, and at 1 o'clock the sitting adjourned.

SEVENTH SITTING.

Thursday Afternoon.

At 3:05 o'clock, President Guilford called the convention to order; and the report of the committee on finance was listened to. This was read by T. B. Cartmel, of Delaware, chairman. It embodied the acceptance of the report of the treasurer, and recommendations that the subscription price of *N. A. R. D. Notes* be \$2 a year, the dues of the association \$3 a year, and that at intervals copies of *Notes* be sent out to non-subscribers. It referred to a special committee the two resolutions having to do with an endeavor to equalize representation from affiliated bodies, and left the compilation of the annual budget to the executive committee.

The suggestions embraced in the report were considered seriatim. No discussion ensued in connection with any of the suggestions with the exception of that disposing of the resolutions on representation. Relative to this, J. C. Wallace raised a point of order, contending that any action tending to change the constitution or by-laws of the association was not in order unless brought up as an amendment to the constitution or by-laws.

W. C. Anderson argued that it was proper procedure to pass any resolution or recommendation and then amend the laws of the association so as to bring them in accord with the action. Mr. Cartmel took the same stand, but Mr. Wallace claimed his point of order and was sustained by the chair who ruled that the resolutions were in conflict with the constitution.

The offending paragraph was deleted from the committee's report; and the report was adopted.

Mr. Wallace offered an amendment to the constitution to limit the representation of State associations to two delegates at each annual convention, with dues for the first year of \$25 each, the dues to be fixed by the national association annually.

This matter went over until a later sitting.

The assistant secretary read a communication from a member at Phoenix, N. Y., who sought light as to why the metric system only was recognized in the Pharmacopœia, when it was not the official system of this country and very few druggists had metric weights and measures. The secretary was instructed to inform the member that the metric system is the official system of the federal government, and otherwise to enlighten him.

THE RESOLUTIONS.

W. C. Anderson, of New York, chairman of the committee on resolutions, presented the suggestions of the committee with regard to the policy of the association during the ensuing year. Several of these suggestions were subjected to minor changes as they were acted upon seriatim by the convention, those approved finally being worded as follows:

PRICE-PROTECTION.

Resolved, That price-protection shall continue to be one of the chief issues of this association.

Resolved, That we firmly believe in the effectiveness of a contract plan as a means of securing legal and beneficial price-protection.

Resolved, That we heartily commend the action of the Miles Medical Company in their loyal and unswerving support of the contract plan for price-protection and their true support of this association.

Resolved, That we commend the efforts of the Freeman Perfume Company and all other manufacturers who have supported and aided the cause of price-protection.

Resolved, That the new plans for price-protection proposed by the Lawrence County Retail Druggists' Association of Pennsylvania and the Chicago Retail Druggists' Association be referred to the executive committee with power.

ATTITUDE TOWARD CO-OPERATIVE CONCERNS.

Resolved, That our resolution adopted at the Pittsburgh meeting in 1910, endorsing all co-operative associations and organizations of retail druggists which benefit the retail druggist, is hereby reaffirmed.

Whereas, through the great influence and valued service of the National Association of Retail Druggists, its members have been brought into close relationship and effective organization,

one fruit of which has resulted in the establishment of a number of co-operative enterprises productive of substantial benefits to the retail drug trade; and

Whereas, the moral influence of the N. A. R. D. has been freely employed in the fostering of such enterprises and has commended their operations to the trade, the wisdom of its officers in such services rendered is hereby recognized and its policy commended; and

Whereas, the successful showing by many of these enterprises is causing a rapid growth of similar institutions in other fields, and the opportunity of the average retailer to ascertain their merit is meager, a well defined policy should be outlined whereby the national association should treat with all such concerns that the financial interests of its members may be most largely conserved; therefore be it

Resolved, That it should be the policy of the N. A. R. D. to advocate that in the management and control of enterprises built up and operated on the capital of druggists, financial control and business direction should be as far as possible in the hands of retail druggists, thereby securing greatest safety and permanence, and, there being a possibility that confidence in the N. A. R. D. would be impaired and its guidance questioned, in cases of financial loss through fraud or failure of such concerns, we deem it vital that the executive officers of the N. A. R. D. should be at all times in possession of all the facts obtainable concerning the financial condition and integrity of all institutions so operating; and

Resolved, That upon the request of the executive committee of the N. A. R. D. each co-operative druggists' concern shall be required to file some time during each year with the executive committee a detailed and certified statement of its financial condition which may be published in *Notes*, and that failure or refusal so to comply shall be regarded as sufficient grounds for denying the use of space in *Notes* for advertising by such concerns, or commendatory favor in the reading columns.

DR. WILEY AND PURE DRUGS LAWS.

Whereas, the National Association of Retail Druggists has been a pioneer in the movement in behalf of pure food and drugs, and has supported all wise and practical efforts to safeguard the food and drug supplies of the nation; be it

Resolved, That this association renews its deep interest in a hearty support of the principle of purity in foods and drugs as embodied in the federal food and drugs act, and the acts adopted in the various States, and pledges to Dr. Wiley and other government officers charged with the administration of these laws our co-operation and assistance to the end that the public welfare may be the further conserved and promoted; and

Resolved, That the thanks of this association are hereby extended to Dr. Wiley and his associates and State food and drug commissioners for every act of theirs which has given effect to the principles of pure food and drugs as declared and reiterated from year to year by this association.

Whereas, section 7 of regulation 7 of the food and drugs act permits the sale of U. S. P. and N. F. preparations of various strengths providing such strength is designated on the label; and

Whereas, such provision causes much confusion in the enforcement of pharmacy laws providing for the use of U. S. P. and N. F. names on drugs of standard strength alone; be it

Resolved, That the section should be repealed or so amended as to provide that all drugs sold to the public under their official names or recognized synonyms shall be of standard strength.

Resolved, That this association favors an amendment to the pure food and drugs act that will protect the public against unwarranted claims for nostrums and will provide that the manufacturing of medicinal preparations be in the hands of licensed pharmacists.

ANTI-NARCOTIC MOVEMENTS.

Resolved, That this association favors interstate anti-narcotic legislation that will prohibit all illegitimate traffic in narcotics and habit-forming drugs and confine their sales to proper channels, and uses to strictly medicinal purposes.

Resolved, That the National Association of Retail Druggists reaffirms its position as being opposed to the indiscriminate sale of habit-forming drugs.

FEDERAL DEPARTMENT OF HEALTH.

Resolved, That we favor a national department of health for the control, discharge and supervision of all national government activities which concern the public health, provided, First, that its establishment include a supervising board with proper representation from pharmacy to whom all questions contemplating changes from existing conditions, manner of regulation or control must be submitted and whose decision shall be final in governing the administration of said department; secondly, that its various sub-departments include one especially devoted to pharmacy and drugs, and another to chemistry, each to be in charge of a specially qualified person.

Resolved, That the executive committee be instructed to request representation for pharmacy at conferences that are held to consider the provisions under which a national department of health shall be established.

REFILLING OF PRESCRIPTIONS.

Whereas, there is little if any legislation prohibiting the refilling of physicians' prescriptions, we believe the physician should specify "do not refill" in English words on each and every prescription which he desires not to be refilled;

Whereas, the members of the National Association of Retail Druggists desire the co-operation of all physicians in protecting and preserving the public health; therefore be it

Resolved, That no prescription upon which the words "do not refill" written in English words appear shall be refilled without the order of the physician; and

Resolved, That no person shall be furnished a copy of any such prescription.

TELEPHONES.

Resolved, That the executive committee be instructed to utilize the services of at least one organizer for special work in the interest of better conditions for the retail drug trade with reference to telephone service and commissions.

Resolved, That the organizer thus selected pursue an active propaganda under the supervision of the telephone committee, and visit such cities as give promise of installing the slot phone and such other places as may have telephone troubles that may be adjusted by him in the interest of our members.

Resolved, That in the financing of this proposition the burden of expense to this association be lightened by the telephone company's assuming its proper proportion.

Resolved, That in view of the many complications and conditions arising out of the slot-telephone problem which so vitally affect the interests of our members, every effort be put forth to retain such advantages as we have gained and to continue most harmonious and beneficial relations; and

Resolved, That our representative confer with the officials of the telephone company with the view of preventing encroachment upon the present basis of compensation.

NEWSPAPER SENSATIONALISM.

Whereas, many people commit suicide or homicide through the use of poisons, and official attention having been drawn to this, legislation for the restriction of their sales is proposed directed especially against branches of the drug trade; and

Whereas, most poisonous substances so employed are either disinfectants or chemicals used in the arts and sold in other lines of business where it would be impossible to comply with methods of sale affording effective control of such articles; and

Whereas, the real trouble is the fact that the name of the poison, and as far as possible the dose employed, as well as fairly accurate information as to the proper dose to employ are usually printed in the newspapers, inducing morbid people and criminals to use these poisons through reading such statements; therefore be it

Resolved, That the members of the N. A. R. D. and its more than one thousand affiliated branches urge upon the coroners and other officials of their States, and especially upon the proprietors of all newspapers published within the State, the importance of refraining from furnishing to the public the name of the poison used in any case of suicide or homicide by poison, and especially from giving instructions regarding the methods of using such poisons and the amount constituting a fatal dose.

PUBLIC RELATIONS.

Whereas, the public has shown a commendable interest in matters relating to food and drugs and is seeking information from reliable sources; and

Whereas, the medical societies have taken an active part in the public work relating to health and sanitation, and in the absence of proper pharmaceutical representation in these movements have attempted to deal with questions of drugs and medicines as they relate to the public weal; therefore be it

Resolved, That the National Association of Retail Druggists shall hereafter take a prominent part in its own behalf in all public work which has for its object the protection of the public health and morals when the same involves in any manner the manufacture, distribution and sale of drugs, medicines, medicinal preparations and appliances; and be it further

Resolved, That to this end a public relations committee of the national association be created, to be appointed annually by the president, the said committee, to consist of five members and constitute one of the standing committees of the association, and to include as ex-officio members the members of our committee on advertising and the editor of our official organ, N. A. R. D. Notes.

GENERAL AND SPECIFIC NATIONAL LEGISLATION.

Resolved, That we favor a meeting of representatives from all branches of the drug trade with a view of giving proper consideration to proposed national legislation which affects pharmacy and the manufacture and sale of drugs, to the end that a proper understanding may be arrived at as to the need and scope of such legislation, as well as the manner of protecting the interest of pharmacy and the common welfare thereto; and

Resolved, That the National Association of Retail Druggists request and advocate such joint meetings and will take an active part therein.

Resolved, That all parcels-post bills continue to receive the vigorous opposition of the retail drug trade.

Resolved, That we favor an amendment to the Sherman anti-trust law, or the enactment of a new law, the provisions of which will not interfere with the welfare of the small merchant who seeks protection and not destruction from large monopolies.

Resolved, That the patent laws be amended in accordance with the well established views of the association as outlined in its conventions for several years past.

Resolved, That the bill to place a tax on proprietary medicines be vigorously opposed.

GOVERNMENT PHARMACISTS.

Resolved, That we petition the president of the United States to request congress to take such action as will elevate the pharmacist in the different government positions which he may occupy.

LABELING WOOD SPIRIT.

Resolved, That we reaffirm the position taken by this association at its last meeting with reference to wood alcohol, and that we continue our efforts to have the name "wood alcohol" changed to "wood naphtha"; and

Resolved, That a copy of this resolution be sent to the

revision committee of the United States Pharmacopoeia, with the request that they give it their serious consideration.

DATE OF ANNUAL MEETING.

Whereas, the holding of the annual convention of this association at so late a date is not only a handicap for many retailers who attend, but also militates against the attendance of many who otherwise might do so; be it

Resolved, That the executive committee be requested to give this matter serious consideration, and if possible arrange an earlier date for our next annual convention, preferably in the month of August.

TENTH ANNIVERSARY OF NOTES.

Resolved, That this association favors the issuing of an extraordinary edition of N. A. R. D. Notes to celebrate the tenth anniversary of that publication, the date of issue of which shall be left to the executive committee, and a copy of which shall be mailed to every retail druggist in the United States.

PROCTER MEMORIAL FUND.

Resolved, That the National Association of Retail Druggists appropriate from the funds of the association the sum of one hundred dollars for the Procter memorial fund.

PROMINENT ISSUES.

Resolved, That price-protection, propaganda work and legislation continue to be prominent issues of this association.

FRATERNAL RELATIONS.

Resolved, That the resolutions presented by the National Association of Pharmacologists providing for a working committee of members of the National Association of Retail Druggists and the National Association of Pharmacologists to be appointed, be referred to the committee on fraternal relations.

SUNDAY REST.

Resolved, That this association respectfully recommends that all retail druggists will as far as practicable observe Sunday, or such portion thereof as possible, as a period of rest.

PERSONAL POLITICAL ACTIVITY.

Resolved, That we urge upon our members the necessity of taking an active interest in political affairs and of having representation in our legislative halls.

SALE OF LIQUORS.

Resolved, That we reaffirm our oft-repeated declaration that we are opposed to the sale, in retail drug stores, of intoxicating liquors for other than medicinal purposes.

DEPARTMENTS AND COMMITTEES.

Whereas, the service rendered by the N. A. R. D. committee on U. S. P. and N. F. propaganda during the past year has been of recognized scope and efficiency, and its possibility for increased usefulness unlimited; be it

Resolved, That this committee be continued, and its efforts to accomplish results be encouraged by placing at its disposal sufficient funds to enable it to perform all service duly assigned by it.

Resolved, That the legal department of the N. A. R. D. be continued under the direction of the executive committee; and

Resolved, That the services of our attorney be given to the legislative committee at such times and in such capacities as that committee may desire.

Resolved, That the executive committee shall be instructed to enlarge the number of the active field organizers not to exceed ten, as the needs of the association may in their judgment require.

Resolved, That the committee on national legislation be appointed as soon as possible after each year's convention.

Whereas, the system employed during the past year for supervising advertisements accepted by our official organ, Notes, has given general satisfaction; be it

Resolved, That a similar committee be appointed to perform the same duties during the coming year.

Whereas, the collection department has rendered valuable service to this organization, be it

Resolved, That this department be continued.

APPRECIATION AND COMMENDATION.

By resolution the convention voiced its appreciation and commendation of its officers and employees, the Women's Organization of the National Association of Retail Druggists, the local entertainment committee, the hotel management, the exhibitors, and the pharmaceutical press.

Very few of the forty-eight affirmative recommendations made by the committee were discussed. One of these few was that having to do with the price-protection plans submitted to the convention. As originally reported by the committee the suggestion was that the plans be investigated by the executive committee and reported upon at next year's meeting. This was characterized as unnecessary and harmful delay by J. J. Boehm, who declared that the retail drug trade needed price-protection right now and could get it if the national association would but offer a plan to proprietors. He moved that the suggestion be amended so as to secure immediate action by the committee. This motion was supported by Messrs. Crowley, Wells and Wallace; and the recommendation was amended to read as in the report above.

Another recommendation getting considerable attention was that relating to the refilling of prescriptions. It was the general consensus that druggists should not be expected to respect the phrase "do not refill" unless it was

plainly indicated by the physician that it was his intention that the prescription was to be filled but once. It transpired that printers of prescription blanks quite generally put a not-to-be-refilled legend on all blanks which is often overlooked by the prescriber. Mr. Anderson pointed out that the chief obstacle to better relations between physicians and druggists was the belief on the part of the former that druggists refilled prescriptions too indiscriminately. The physician, he said, has the right to control his prescriptions; and for the druggists to tell the doctors that their prescriptions would be refilled as the druggists saw fit would be to drive the doctors to dispensing.

Messrs. Fluck, Shuptrine, Holthoeffer, and Elkin thought that the recommendation gave too much power to the physician. They favored the purpose of the recommendation but urged that the phraseology be such as to require a direct order from the prescriber and not let printed directions suffice. J. F. Finneran was opposed to giving the medical societies any opportunity to secure legislation against refilling. Mr. Potts thought that the physician had no right to restrict the refilling of any but narcotic-containing prescriptions or those calling for poisons.

The recommendation was finally amended to require a written direction by the prescriber.

The following resolution approved by the committee was tabled by the convention.

Resolved, That it is the sense of this association that boards of pharmacy should exercise their power to refuse, suspend or revoke any license for the ownership of a drug store when it is found that such alleged drug store is being used as what is commonly known as "blind tigers" for the unlawful sale of spirituous liquors.

When this resolution was reported by the committee L. L. Walton, of Pennsylvania, suggested that it be amended to require conviction at law as proof of guilt. J. F. Guerin, of Massachusetts, was of the same opinion; but R. K. Smithers, of New York, favored the committee's phraseology.

C. H. Huhn, of Minnesota, could see no necessity for the proposed step which he thought would cast a reflection upon the drug trade. So, too, thought J. J. Bohme, of Illinois; while B. E. Pritchard, of Pennsylvania, favored the resolution as a frowning by the association upon a blame-worthy practice.

The committee's report recommended the disapproval of the following propositions:

One providing that the legislative committee be instructed to have the federal license act amended so as to permit the sale of alcohol for medicinal use without the seller being obliged to pay the regular retail liquor dealer's license of \$25 annually.

One providing that N. A. R. D. Notes refuse advertising matter from firms that do not restrict their wholesale prices to a specified amount.

One providing that we request a druggist to become the judge as to whether physicians' prescriptions should be repeated or not by refusing to refill prescriptions containing certain drugs.

One providing for the appointment of a committee for the purpose of criticising the advertising matter of manufacturers, and to use efforts to have laws passed prohibiting the use of such advertising matter.

One providing that the executive committee shall take up on behalf of different organizations supposed infringements of the Sherman anti-trust law.

One providing for an attempt to have a combination license for retail druggists covering the sale of spirituous liquors and habit-forming drugs.

One providing that manufacturers shall be compelled to place upon the labels of their products the proportion of bromine, nux vomica, hyoscyamus, arsenic, iodine and many other drugs which such preparations contain.

One providing that this association shall take active steps in reference to designating what condition shall prevail as to the statements placed upon the labels for various preparations concerning their therapeutic properties.

One providing that our members offer their stores as distributing depots for contemplated health journals for distribution to the laity.

One providing for legislation to regulate the dispensing, sale and application of drugs by physicians.

Not all these recommendations were concurred in without argument. H. G. Sandkoetter, of Illinois, opposed the first one, that relating to seeking to amend the internal revenue law, because he considered the present law unjust as it affects druggists. The proposition was put to a vote, and the committee was sustained by a vote of 65 to 20.

Opposition next arose to the last recommendation, that having reference to dispensing by physicians. Mr. Pritchard wished to know why the committee was opposed to the resolution. Mr. Anderson explained that to pass it would be folly, that pharmacists had enough to do in cleaning up their own house, and that the more they meddled in medical affairs the more opposition would be offered by physicians.

Mr. Shuptrine considered the resolution useless and Mr. Holthoeffer called it hypocritical.

A motion to overrule the committee was lost; a motion to amend the committee's finding was tabled; and the action of the committee was concurred in.

The report of the committee on resolutions was then adopted as a whole in its revised form.

W. S. Elkin offered an amendment to the constitution providing for the election of but two members of the executive committee each year, the members to serve for three years.

This matter went over to a later sitting.

W. C. Anderson moved that the constitution and by-laws be amended so as to provide for the committee on public relations authorized by a resolution previously adopted.

This also went over to a later sitting, the convention adjourning for five minutes so as to provide an extra session.

EIGHTH SITTING.

Thursday Afternoon.

When the meeting was again called to order, Mr. Anderson secured the adoption of the amendment offered by himself at the preceding sitting.

Messrs. Walton and Elkin called up the amendments they had respectively offered at the preceding sitting, but as an objection was stated in each case, and a unanimous vote being necessary for ratification, both propositions were laid over until the 1912 meeting.

Mr. Elkin at this time addressed C. F. Mann, of Detroit, Mich., who had declined to serve longer on the executive committee, commending him for his labors in behalf of the organization and presenting to him a token of the esteem in which he was held by the members of the association; which token, Mr. Elkin had to regret, had not then assumed a tangible form but was forthcoming.

Mr. Mann, in responding, expressed his gratification for the heritage of friends his official life had left him.

On behalf of the representatives of the pharmacal press C. A. Mayo, of New York, presented a resolution of thanks to Secretary T. H. Potts, who, replying, said that he recognized the assistance of the pharmacal press as most valuable.

Messrs. Elkin and Mann acting as ushers, the newly elected officers were duly installed. The assemblage, perhaps the largest ever present at a closing sitting, sang one stanza of "America." And at 6:35 o'clock President H. C. Shuptrine declared the thirteenth annual convention adjourned.

The Entertainments.

Just as long as "the wind bloweth where it listeth" Niagara Falls and the milk-white waters of the gorge will continue to hold out new and ever-changing aspects that tire not the spectator, be he never so frequent a visitor: each shifting of the wind, even each turn of a zephyr, sets anew the curtain of mist and spray, revealing, concealing the wonders—but it takes a Shuptrine to describe Niagara. Sufficient is it to say that none there was among the hundreds whom the convention had brought together, first visitor and he of a hundred trips, who did not stand in wonder and gaze with awe at the world's gorgeous spectacle. Add to the unequalled natural attractions of the place, the spirit of hospitality and good cheer and the means of relaxation and enjoyment afforded by the entertainment committee, and there need be no wondering at the social success of the meeting.

Not on the official program but nevertheless tremendously enjoyed by the visitors was the address by Elbert Hubbard on Monday afternoon. The Fra handed out some pertinent advice along with his peculiar, piffous philosophy. Advice that seemingly was heeded, for there were numerous indications that the delegates had in mind his Rule 5.

Foremost among the formal entertainment features was the president's reception and dance on Tuesday evening. One regret there was: The reception hall at the Cataract House was just half large enough.

On Wednesday an inspective tour of the shredded wheat plant occupied the ladies; and there was an informal reception for them in the evening.

Tuesday afternoon the ladies viewed the falls from the many points of observation, being driven about in carriages.

Last and perhaps most impressive was the gorge-line trolley trip on Friday morning, which was made by several hundred visitors.

Because of inclement weather the open-air vaudeville and smoker scheduled for Thursday evening was held in the hotel dining room.

The thrilling trip on the "Maid of the Mist" was provided for the ladies on Thursday.

As It Were—

Honest Injun, now; just what ratio does the amount of real work done bear to the amount of time variously wasted? The actual time that the convention proper was in session was sixteen and one-half hours, with three and one-fourth hours additional consumed in the open meeting of the committee on resolutions.

That recurrence of the newspaper-reporter-stuffing so disconcerting at the Atlantic City meeting three years ago, incited several remarks of "Officer, he's in again." Goodness me! cannot this undesirable publicity be prevented?

"Standing theh, Misteh Mayah, suh, and gazing, as it weh, upon the very haht-pulses of Natchuh"—yes; that's Shuptrine. He's a druggist, yes; hasn't time to go to congress.

There could scarcely be a possibility of any one fighting more valorously in the face of sure defeat than do the two W's from Pennsylvania—might except "Tom" Armstrong.

"Told you so;" meaning that we have several times remarked upon the manner in which H. B. Guilford can put the Indian sign on guff. Some alacrity there!

In the matter of getting things the druggists could profit much by observing their better-halves among the exhibits—or the man who ordered the perfumes.

J. Arthur Bean wants to know, every time he comes to a convention—well, he's found out, hasn't he?

Then, too, some of the smaller commonwealths have the know-how of the getting-things game down pat.

For N. A. R. D. anthem: "Die Schnitzelbank," without opposition.

Merritt or merit, it's all the same.

New Officers of W. O. N. A. R. D.

At the annual meeting of the Women's Organization of the National Association of Retail Druggists held at Niagara Falls, contemporaneously with the convention of the N. A. R. D., the following officers were chosen for the ensuing year:

President, Mrs. C. A. Storer, of Chicago, Ill.; vice-presidents, Mrs. J. G. Godding, of Boston, Mass.; Mrs. Louis Emanuel, of Pittsburgh, Pa.; Mrs. J. H. Fricke, of St. Louis, Mo.; Mrs. J. O. Bosley, of Wilmington, Del.; and Mrs. R. G. Rutherford, of Brooklyn, N. Y.; secretary, Mrs. W. E. Lee, of Philadelphia, Pa.; treasurer, Mrs. O. C. Groenland, of Cincinnati, Ohio; members of the board of directors, Mesdames L. O. Wallace, of Canton, N. Y.; W. S. Richardson, of Washington, D. C.; R. E. Dorland, of Decatur, Ill.; J. J. Sieberz, of Louisville, Ky.; J. T. Roe, of Mobile, Ala.; F. E. McBride, of Youngstown, Ohio; A. J. Riess, of Rockland, Ill.; and H. C. Shuptrine, of Savannah, Ga.

National Association of Pharmacologists.

The executive board of the National Association of Pharmacologists met at Columbus, August 29th.

Resolutions were passed deprecating the operation of drug departments in State institutions by unregistered men and appealing to the governors to see that the pharmacy laws are fully complied with.

The pure food and drug laws, federal and State, were strongly endorsed.

It is the plan of the committee on arrangements for the 1912 meeting of the Pennsylvania Pharmaceutical Association, which will be held at Buena Vista Springs, to have several joint meetings with the Maryland Pharmaceutical Association which will meet just across the border at Blue Mountain House at the same time. The meeting date is June 25th to 27th.

South Dakota Association.

The annual meeting of the South Dakota Pharmaceutical Association was held at Huron, August 23d to 25th.

At the opening session, presided over by President Krebs, the members were welcomed by Local Secretary Perriton and Mrs. Perriton; short addresses were made by several members and the president delivered his annual address.

A number of papers on various interesting topics were presented.

There were no contests among the members for the various offices, all being elected by acclamation, as given below:

President, J. F. Wagner, of Garden City; first vice-president, H. C. McClain, of Tripp; second vice-president, George Sherman, of Canton; treasurer, A. A. Woodward, of Aberdeen; secretary, E. C. Bent, of Dell Rapids; local secretary, L. E. Highley, of Hot Springs.

Two of these officers, E. C. Bent and A. A. Woodward, succeeded themselves.

The following named persons were nominated by the association to the governor as candidates from which to select a member of the board of pharmacy to succeed G. F. Swartz, of Redfield; F. D. Kriebs, of Beresford; and C. B. Baldwin, of Rapid City.

As indicated above, Hot Springs was chosen as the place for the next meeting.

Nearly three hundred persons were in attendance at the meeting.

Picnics.

Being old acquaintances with water in more ways than one the druggists of Portland, Me., and vicinity, constituting the Cumberland County Druggists' Association went right on with their picnic held August 31st, despite the rain. The downpour however made sliding to bases so easy and throwing curves so hard that the ball game lasted but two innings. A prize whist tournament was the exciting indoor sport.

Base-ball seems to be the natural outcome of pill-rolling—of course in the winter bowling is recognized as a close relation—and there was some ball playing when the Holyoke, Mass., druggists crossed bats with their doctor neighbors at the joint annual clam-bake August 23d. Both sides claimed the victory when the game was called because the clams were cooked.

The annual outing, field meet, and ladies' day of the Alumni Association of the Rhode Island College of Pharmacy and Allied Sciences occurred August 31st, at Bay Shore, near Providence. Even though it rained everybody had a good time.

That rainy last day of August seems to have been especially moistened for druggists' outings. Another picnic party to brave the wet on that day was the Troy (N. Y.) Pharmaceutical Association at its tenth annual outing. The so-called base-ball game was declared a tie when John Healey lost the ball. Everybody scored equally in the clam-bake.

Druggists cannot always beat the drummers at base-ball; see that 12 to 10 score at the first annual clam-bake of the Utica, N. Y., druggists, September 4th.

The New Orleans (La.) Drug Clerks' Social Club had an evening-at-home August 29th, and a big-time outing at Mandeville, September 17th.

Anti-Narcotic Doings.

B. E. Laughlin, of San Jose, Cal., plead guilty, August 21st, to a charge of illegal morphine selling, and was sentenced to pay a fine of \$100.

A man and woman were arrested in Brooklyn, N. Y., September 9th, on the charge of maintaining a cocaine dispensary. A large quantity of the drug was found in their quarters.

The grand jury of Hinds county, Mississippi, in its September communication reported as follows:

The sale and use of cocaine is alarming, principally among the negroes, who in some sections of the county, when short of cash, have actually bartered their farm products for the drug. We trust good citizens will continue to assist the officers in rooting out this evil, which is demoralizing labor and filling the jails with criminals.

A layman and a druggist of Newark, N. J., were recently apprehended by the police charged with conniving in the illegal sale of chloral. It is alleged that the druggist had filled a prescription for the drug, forged by the other defendant.

News of the Pharmacy Boards.

List of Board Secretaries.

In the following list are to be found the names and addresses of the secretaries of the various boards of pharmacy of the country. When the date and place of the next meeting of a board are known they are given also.

Secretaries are requested to keep us informed as to dates and places.

- ALABAMA—October 10th, at Montgomery. E. P. Galt, Selma.
- ARIZONA—November 8th, at Phoenix. A. G. Hulett, Phoenix.
- ARKANSAS—J. F. Dowdy, Little Rock.
- CALIFORNIA—December 5th, at Hartford. J. A. Levery, Bridgeport.
- COLORADO—S. L. Bresler, Denver.
- DELAWARE—N. C. Downs, Wilmington.
- DISTRICT OF COLUMBIA—October 12th and 13th, at Washington. S. L. Hilton, Washington.
- FLORIDA—January 16th and 17th, at Jacksonville. D. M. Ramsaur, Palatka.
- GEORGIA—C. D. Jordan, Monticello.
- IDAHO—J. M. Starrh, Shoshone.
- ILLINOIS—F. C. Dodds, Springfield.
- INDIANA—October 11th and 12th, at Indianapolis. W. H. Fogas, Mt. Vernon.
- IOWA—December 5th, at Des Moines. E. J. Moore, Des Moines.
- KANSAS—November 15th, at Hays. W. E. Sherriff, Ellsworth.
- KENTUCKY—October 10th and 11th, at Mt. Sterling. J. W. Gayle, Frankfort.
- LOUISIANA—F. E. Earhart, New Orleans.
- MAINE—October 11th and 12th, at Augusta. F. W. Bucknam, Skowhegan.
- MARYLAND—Ephraim Bacon, Roland Park.
- MASSACHUSETTS—Every Tuesday between September 1st and July 1st, at Boston. P. J. McCormick, Boston.
- MICHIGAN—J. J. Campbell, Pigeon.
- MINNESOTA—October 16th, at Minneapolis. C. T. Heller, St. Paul.
- MISSISSIPPI—L. H. Wilkinson, Greenwood.
- MISSOURI—October 9th, at St. Louis. C. E. Zinn, Kansas City.
- MONTANA—October 11th, at Great Falls. S. J. Coffee, Missoula.
- NEBRASKA—A. V. Pease, Fairbury.
- NEVADA—November 1st, at Reno. R. L. Prouty, Tonopah.
- NEW HAMPSHIRE—F. H. Wingate, Nashua.
- NEW JERSEY—October 19th and 20th, at Trenton. H. A. Jorden, Bridgeton.
- NEW MEXICO—A. J. Fisher, Santa Fe.
- NEW YORK—W. L. Bradt, Albany.
- NORTH CAROLINA—December 5th, at Raleigh. F. W. Hancock, Oxford.
- NORTH DAKOTA—October 16th, at Fargo. W. S. Parker, Lisbon.
- OHIO—F. H. Frost, Columbus.
- OKLAHOMA—J. C. Burton, Stroud.
- OREGON—F. C. Pozzi, Portland.
- PENNSYLVANIA—November 10th and 11th, at Philadelphia and Pittsburgh. L. L. Walton, Williamsport.
- RHODE ISLAND—November 7th, at Providence. J. E. Brennan, Pawtucket.
- SOUTH CAROLINA—November 15th, at Abbeville. F. M. Smith, Charleston.
- SOUTH DAKOTA—October 11th and 12th, at Aberdeen. E. C. Bent, Dell Rapids.
- TENNESSEE—October 17th, at Knoxville. I. B. Clark, Nashville.
- TEXAS—R. H. Walker, Gonzales.
- UTAH—October 17th and 18th, at Salt Lake. W. H. Dayton, Salt Lake.
- VERMONT—D. F. Davis, Barre.
- VIRGINIA—October 24th, at Richmond. T. A. Miller, Richmond.
- WASHINGTON—P. Jensen, Tacoma.
- WEST VIRGINIA—A. Walker, Sutton.
- WISCONSIN—Edward Williams, Madison.
- WYOMING—C. B. Gunnell, Evanston.

Kansas Board.

At a meeting of the Kansas Board of Pharmacy held at Winfield, August 23d, 47 candidates for registration were examined. Of these 18 were passed. Their names follow:

O. J. Bellwood, of Turon; John T. Blank, of Elk City; Lota Bunch, of Beloit; M. W. Darst, of Caldwell; W. H. Firth, of Emporia; H. E. Fowler, of Independence; P. H. Lindley, of Havana; J. O. Little, of Mulvane; R. E. Mitchell, of Caney; L. C. Mosier, of Liberal; Clarence Newton, of Alta Vista; E. E. Nyman, of Lawrence; W. F. Peel, of Pratt; A. J. Porter, of Abilene; R. E. Rathbun, of Sedan; C. L. Smith, of Abilene; Leo E. Waller, of Hutchinson; and W. F. Woodford, of Topeka.

The next meeting of the board for examination will be held at Hays, November 15th.

Maine Board.

At a meeting of the Maine Board of Pharmacy held at Augusta August 9th and 10th, 19 candidates for registration were examined of whom the following were passed:

As pharmacists—James H. Allen, of Waterville; Wallace L. Barney, of Milo; Linwood C. Bubier, of Lewiston; Guy R. Harriman, of Norway; William H. McGrath, of Biddeford; Carl E. Stone, of Norway; and William H. Ward, of Lewiston.

As assistant—Robert N. Miller, of Caribou.

Pennsylvania Board.

At a meeting of the Pennsylvania Board of Pharmacy held at Williamsport, August 24th and 25th, there were 20 applicants for registration as pharmacist, and 33 as assistant. The following were passed:

As pharmacists—Joseph L. Capozio, of Philadelphia; James H. Ennis, Jr., of Jenkintown; Stuart L. Kleckner, of Mifflinburg; and Howard G. Schauermaun, of Philadelphia.

As assistants—Thomas H. Aughinbaugh, of Clearfield; Abraham Gruber, of Philadelphia; John E. Hamilton, of Smithton; James H. Hodgkins, of Williamsport; William C. Marshall, of Altoona; Gustaf L. Noestert, of Mt. Carmel; Arthur J. Smith, of Dushore; Harvey E. Stouffer, of Reading; and Hyman Yaskin, of Philadelphia.

Nearly all of the applicants for registration as pharmacists were persons who failed in the June examination.

The board decided to undertake the prosecution of all persons who violate the new poison law.

Resolutions endorsing Dr. Wiley were adopted, reciting that the board had learned to appreciate his scientific ability, integrity and devotion to duty, and that it believed his removal from the office "would be a great loss to the American people and a direct blow to the integrity of a conscientious, faithful and efficient public servant."

The next meeting for examination will be held at Philadelphia and Pittsburgh, November 10th and 11th.

Tennessee Board.

At a meeting of the Tennessee Board of Pharmacy held at Nashville in July, 39 candidates for registration were examined, of whom the 13 named below were passed:

W. H. Allison, of Nashville; W. H. Blakely, of Old Fort, N. C.; R. R. Bost, of Nashville; M. W. Braden, of Lynnville; S. S. Bradshaw, of Nashville; J. H. Castleman, of Nashville; P. F. Johnson, of Knoxville; Leslie Lide, of Nashville; R. S. Mills, Jr., of Nashville; Basil Moses, of Big Sandy; G. W. Reed, of Nashville; Elizabeth C. Reynolds, of Nashville; and H. A. Shannon, of Springfield.

The board adopted the following rules:

"All applicants for examination must have preliminary qualification equal to a grammar school education and file with application for examination, his diploma from a grammar school, or a certificate from county superintendent of schools, as evidence of the required educational qualifications.

"To meet especial emergency cases the board will issue a temporary certificate, good only from date of issuance until the next meeting of the board; issued only to applicants who are qualified to receive permanent license and are engaged in the practice of pharmacy under the direct supervision of a registered pharmacist. In no instance will a temporary certificate be extended beyond the date of expiration. The fee for issuing a temporary certificate is \$10 in addition to the regular examination fee."

The next meeting of the board will be held at Knoxville, October 17th.

Der New Yorker Deutsche Apotheker-Verein.

BY DR. WILLIAM C. ALPERS.

The organization of the Deutsche Apotheker Verein, sixty years ago, may be called one of the most important events in the history of American pharmacy. The Verein is not only the oldest pharmaceutical association in this country, not counting colleges, antedating even the venerable American Pharmaceutical Association by one year, but it has proved to be an association of great energy and great influence. More than once it has given the impetus to some movement for pharmaceutical improvement, and pharmaceutical ideals have gone forth from its headquarters to every part of the United States. There has been no general movement in pharmaceutical matters during the past six decades in which this German association did not take an active part, and it is no exaggeration to say that its influence is felt to-day more powerfully than that of any like association, with the exception, perhaps, of the American Pharmaceutical Association. It has embraced in its work every branch of pharmaceutical activity; it has made for higher education; it has advocated the founding of colleges; it has been prominent in furthering the passage of beneficial pharmaceutical laws; it has entered into the fight against substitution; it has helped whenever possible to bring about a freer and more friendly intercourse between the members of the profession.

The great desire for political freedom, the spirit of republicanism that shook Germany in the year 1848 had passed. The revolution that tried to bring about a united Germany was a revolution principally of the educated classes, and when afterwards the reaction

set in, thousands and thousands of young men who were filled with the spirit of political and social freedom left their homes and scattered to all parts of the world. Some went by compulsion because they were exiled from their own country, others left in the following ten years because they could not, or would not, become accommodated to the restraint that the political reaction imposed upon them.

The whole world profited by this revolution, for German energy, German education, German idealism, went everywhere, but the country that profited most was the United States of America. For to this country, the home of the brave and the free, the larger portion of these exiles turned in expectation of finding a place where the ideals of their youth would be realized. It was thus that men like Carl Schurz, Abraham Jacobi, and Hans Kudlich came to these shores, and this country received the benefit of their master minds. It was in these years also that many educated

pharmacists left Germany and settled in New York and other cities of the United States. No wonder that they flocked together! The assimilation of foreign spirit, foreign energy, foreign culture by Americans was not as easy then as it has since become. These newcomers represented their own country to the fullest extent in every way, and it was therefore more difficult for them to accommodate themselves quickly to new surroundings, but they came with the intention of becoming permanent citizens of the United States. Their conception of citizenship was an ideal one, and they were willing not only to reap the benefits that their new home might give them, but also to do honest work and assume all the responsibilities that the new country might put on them. They were true Americans in spirit the very day they set foot upon these shores,

because they were free men, free in hope and in desire, and they remained true to their ideals to the end of their lives.

Such was the mental caliber of the founders of the Deutsche Apotheker Verein. They saw with sadness the deplorable condition of pharmacy at that time in this country. The apothecaries of Germany were highly respected, the equal of other professional men, in their own home, so they set about to do something to make their condition better in this city. They formed a society, laid out work, and went about it with a will. They have been at it now for sixty years, and have accomplished much. It is one of the most satisfying facts in the history of American pharmacy that the men who now are the leaders of the Deutsche Apotheker Verein are aware of the great and important inheritance that is left to them, and strive to turn it over to a later generation in its old brilliancy.

At a meeting held September

30th, 1851, which extended to the early morning of October 1st, the founding of the German society was accomplished, its name being Neu Yorker Pharmaceutische Lese-Verein (New York Pharmaceutical Literary Society). There were twenty-five German apothecaries present, namely:

H. M. Brandis, G. A. Cassabeer, Wilhelm Ehlers, Albrecht G. Dung, H. Gnadendorf, W. Gottschalk, Ludwig H. Hasse, Gottfried Heberling, Jacobsen, J. Jansen, Charles T. Mayer, Fr. Mayer, Ferdinand Mann, Hermann Metz, Heinrich Mollwitz, Adolph Nietsch, Gustav Ramsperger, John Rudolph, Gustav Schaffer, C. Seidel, T. Schmidt, H. Walldorf, Philip Wiskemann, and Zimmermann.

The first president of this society was G. A. Cassabeer. The immediate object of this new association was the securing and reading of scientific and secular literature. The various journals and magazines were circulated from house



EX-PRESIDENT GUSTAV RAMSPERGER.

Only survivor of the twenty-five druggists who founded the New York German Apothecaries' Society, October 1st, 1851.

to house. The society, however, soon extended its scope of activity, and the name Deutscher Pharmaceutischer Verein (German Pharmaceutical Association) was adopted. In the year 1864 the name was again changed, this time being made Deutsche Apotheker Verein (German Apothecary Association) and the society is generally known by this name to-day. The official name, however, is different. It happened that in the year 1864 a second German association was formed under the name Scientific Society of the German Apothecaries of the City of New York. This association, although small in number, showed great activity, particularly in scientific matters, and many members of the



GEORGE KLEINAU.

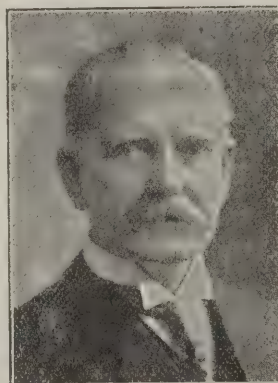
Now serving his second term as President; formerly Corresponding Secretary and for many years Chairman of the Legislative Committee.

older society became members of it. A friendly intercourse between the two societies soon sprang up. It became customary for the members of the other association to attend all scientific lectures in either of them. It was natural, therefore, that the desire to combine the two associations into one should come into existence. After some preliminary negotiations the consolidation took place in the year 1873. As the second association was an incorporated one, its name was adopted as the official legal name of the new joint society, but among the members the name of the older one remained in vogue, and has remained as the more popular one all over the country.

Such a society as the apotheker verein attracted some of the best members of the profession. The desire to do

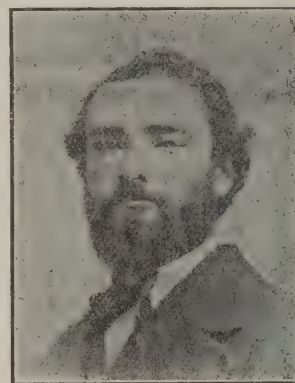
pute. To name all the members, whose number has gradually increased to 250, would be beyond the scope of this sketch, but even the list of the presidents will at once reveal a long succession of men of high character, standing, integrity and exceptional ability.

The first president, G. A. Cassabeer, was succeeded by Albert Dung, who for many years conducted a flourishing pharmacy at the corner of Canal street and the Bowery,



WILLIAM C. ALPERS.

Presiding Officer at the Fest One of the twenty-five Kommerz for the celebration founders; once associate editor of the Sixtieth Anniversary.



FERDINAND F. MAYER.

which was at that time in the center of the retail business in New York. A few years later A. Weismann occupied the chair, and he, in turn, was succeeded by Gustav Ramperger. Both these presidents served a number of terms. We then find the names of Paul Balluff and Carl Eimer, men who represented what, even to the present day, is all that is good and noble in pharmacy. Charles Frohwein was the next president, succeeded after three years by Dr. Mittenheimer. Then came Theodore Louis, a man of sweetest disposition and tact, largely through whose influence the merging of the two German pharmaceutical societies was brought about. He was followed by Mr. Remold, who



DR. ADOLPH TSHEPPE.

President several terms; literary and scientific pharmacist; now successful fruit grower of Whittier, Cal.



ERNST A. BOETZEL.

The present Corresponding Secretary of the Society.



ROBERT LEHMAN.

The present Treasurer of the Society.

good and excel beyond the circle of one's family and sphere of daily toil is one of the leading impulses in every man who is conscious of his ability and worth and whose ambition causes him to aim at a high, pure purpose. The roster of the society shows, therefore, names of high standing, some of men of national and international re-

in turn was succeeded by Dr. Gustav Pfingsten, who held the office for a number of terms. His energy, humor, and ready wit are well remembered by all who knew him. After H. Lehlbach had served one term, Dr. Adolph Tsheppe was called to the chair. He was a man of high ideals, stern and energetic. The next president was our friend, E. C. Goetting, who through his great activity instilled new life into the verein, and by inaugurating many pleasing social features brought about a better attendance at its meetings. Victor Kostka was the next one to con-

duct the affairs of the society, alternating for a number of terms with some of the older ex-presidents, until Carl F. Schleussner became president in 1898. The list closes with the well-known names of Carl Imhof, Felix Hirse-

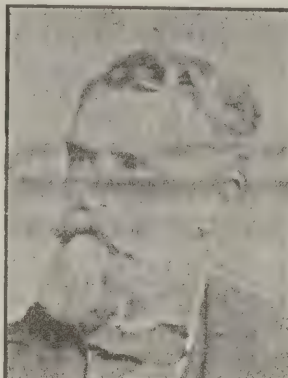
plished a great deal is easily understood. And if we look over the records of the verein during the last sixty years we are astonished by the diversity of movements that have originated in this center.



G. A. CASSABEER.



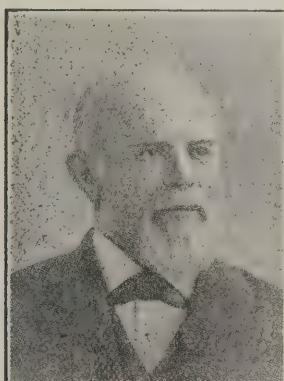
A. WEISSMANN.



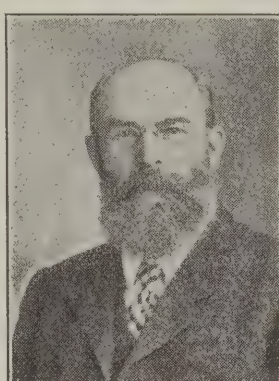
PAUL BALLUFF.



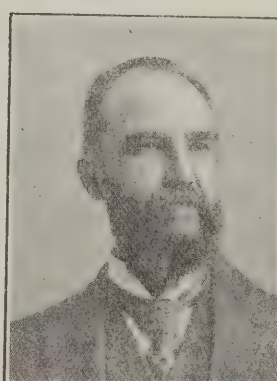
VICTOR KOSTKA.



THEODORE LOUIS.



E. C. GOETTING.



CARL F. SCHLEUSSNER.



FELIX HIRSEMAN.

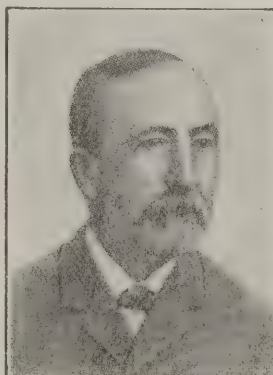
A Group of Ex-Presidents of the Society, Including the First and the Last.

man, and George Kleinau, the latter being the present incumbent.

Besides these excellent men, who as presidents conducted the verein, there deserve to be mentioned a number of others who by unremitting energy and broad views contributed their share to the high standing of the society. Who does not remember the gentle and amiable Prof. John M. Maisch, of Philadelphia? Who ever can forget the master mind of Dr. Charles Rice? Although he did more than anyone else to shape the history of American pharmacy he was always quiet and modest, unwilling to come forth into the light of publicity, but thinking and working faithfully in his quiet retreat in the dispensary of Bellevue Hospital. How could we pass over our dear friend, C. Louis Diehl, the expounder and godfather of the National Formulary? Then there were B. G. Amend, Dr. Neergaard, H. Schuman, Dr. Gustav Droegg, with his inexhaustible source of chemical knowledge, Frederick Hoffmann, George Leinecker, Carl Schur, George C. P. Stolzenberg, Emil Roller, chairman of the scientific committee, and the poet of the verein, and many others. Of the original twenty-five founders there were seven alive at the twenty-fifth anniversary; to-day only one remains at the sixtieth return of the day—Gustav Ramsperger. He is indeed a worthy, if not the worthiest, representative of German-American pharmacy, active and faithful from the first year. His name appears on nearly every page of the records, his services were true and loyal, whether as president, treasurer, trustee, delegate or committeeman. And to-day he stands among us, gray in hair, but youthful and fresh in spirit and mind, ready for any work that may be wanted of him.

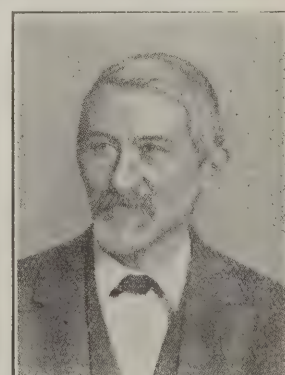
That men of such energy and working capacity accom-

In the first year of its existence the difficulty of variations in formulas for many preparations presented itself in all parts of the city of New York. There was a United States Pharmacopœia, but it had scarcely any influence.



CARL EIMER.

At one time President of the Society.



B. G. AMEND.

A former Vice-President and leading member.

It could be found in few, if any, pharmacies or drug stores, nor did physicians generally know it or care about it. There were at that time different pharmacopœias in different parts of Germany. It was natural, therefore, that



DR. GUSTAV PFINGSTEN.
(1843-1904.)

President four terms and Secretary two terms.



HENRY IMHOF.
(1839-1908.)

President three terms. Excelled as apothecary and musician.

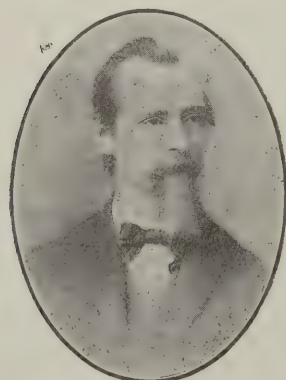


CARL E. KESSLER.
(1847-1910.)

For many years Vice-President and Trustee.

prescriptions presented in one part of New York were not always filled in the same way as in another part, although both fillings might have been correct according to the method and education of the pharmacist. To overcome this variance, the association resolved to prepare a manual as a guide for its members, and a committee was appointed for this purpose. The men most active in this work were Cassebeer, Balluff, Ramsperger and John Faber. It took a number of years to come to a decision in this matter, but the manual was finally printed and copies were distributed among the members of the association and the physicians of New York. It will thus be seen that as far back as 1852 this association inaugurated the work leading to the present National Formulary; and the claims of

1859 only two. So there was not much dependence placed on a school of learning. It was then that the association formed a committee which instructed and examined young



PROF. JOHN M. MAISCH.

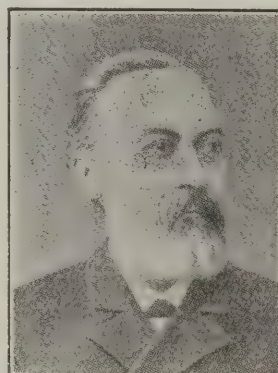


DR. CHARLES RICE.

Two Distinguished Honorary Members, now Dead.

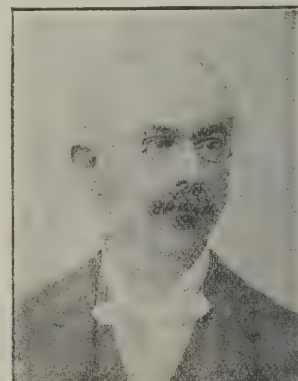
some State pharmaceutical associations to have been the pioneer in this work can be refuted by the records of the Deutsche Apotheker Verein.

Another difficulty that presented itself to these men who were accustomed to strict scientific education and expected the growing generation to be trained in the same way, grew out of the scarcity of properly educated apprentices and assistants. It is true there were plenty of young men who claimed to know something about running a drug store, but their idea was that a drug store did not differ much from a grocery store, and that anyone who had spent a short time in either of them was qualified to open his own business. There was at that time the New York College of Pharmacy, but it was in a rather sleepy condition. In 1857 it graduated no students, in 1858 and



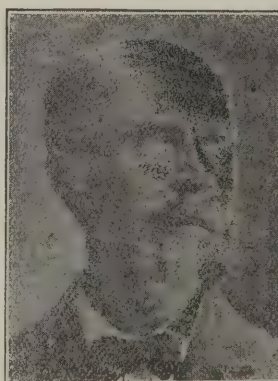
EDWARD PFAFF.

During his lifetime one of "Father" of the National the most popular members, Formulary, now recognized as and a some-time office holder. an Official Standard.

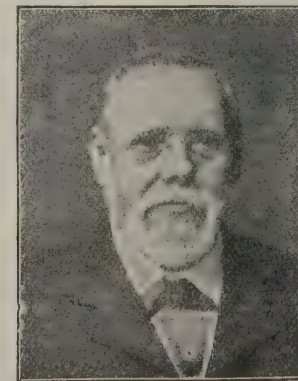


S. J. BENDINER.

men in physics, chemistry, zoology, botany, mineralogy, practical pharmacy, pharmacognosy and toxicology. This committee existed for a number of years. Many candi-



WILHELM BODEMANN.



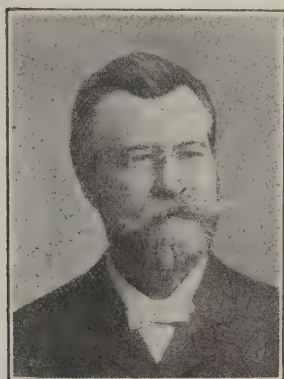
PROF. C. LEWIS DIEHL.

Two Distinguished Honorary Members, Very Much Alive.

dates were examined, in most cases with gratifying results for preceptor and apprentice, and to the latter diplomas were given. There are some prominent pharmacists in New York now who received their education and diplomas from the committee of the Deutsche Apotheke Verein. When, later on, the college of pharmacy revived, the association took a lively interest in its development and the committee became superfluous.

In the years 1871 and 1872 an effort was made in the New York Legislature to turn pharmacy over to the politicians; to create a board of pharmacy for the purpose of squeezing out of the druggists as much as possible, without any reference to knowledge or education. The German society raised its voice against such improper legislation, and men who had spent much money, time and labor for

society took hold on the pharmacists all over the world, and to-day we have such compendiums, not only of those two pharmacopœias, but of the pharmacopœias of the



CARL SCHUR.

For many years Vice-President and Trustee.



GEORGE C. P. STOLZENBURG.

Now and for many terms Librarian.

their own pharmaceutical education fought in the foremost ranks against the proposed law. It was at that time that Frederick Hoffmann and Gustav Ramsperger showed their high spirit for the advancement of pharmacy, and under their guidance, assisted by a member of the association, A. Weisman, who was also a member of the senate, a new and better pharmacy law was enacted. [See the CIRCULAR for January, 1907, page 144.] It took many



PAUL F. GERICKE.

Now serving as Second Vice-President.



GEORGE LEINECKER.

Now and for many terms Archivist of the Society.

days and weeks of hard work to accomplish this object, but the repeal of the other law, which was a pernicious one, and the passing of the new law was hailed all over the United States as a triumph of pharmacy, and in many other States the pharmacists took courage to imitate the good example.

In 1874 a committee was appointed by the association to prepare a comparative compendium of the preparations of the Pharmacopœia Germanica and the Pharmacopœia of the United States, in order to show physicians and pharmacists the sometimes important differences in the preparations of the two pharmacopœias in cases in which their names might be the same, or nearly the same. Here then, we had the pioneer work in the direction of an international pharmacopœia. The idea which originated in this



DR. CHARLES F. KLIPPERT.

Now and for many years Official Reporter for twenty First Vice-President; one of years. Chief Publicity Prothe younger men who is doing moter of the Society and permuch to carry on the work of haps its most active and widely known member.



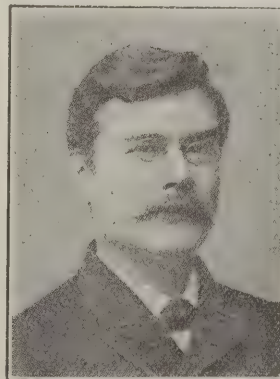
HUGO KANTROWITZ.

whole world, and efforts to bring about uniformity have been fostered and have had some measure of success.

In 1878 the society took up the subject of securing exemption of the apothecary from jury service. It was joined by the college of pharmacy and by other societies, and after a hard struggle victory was won.

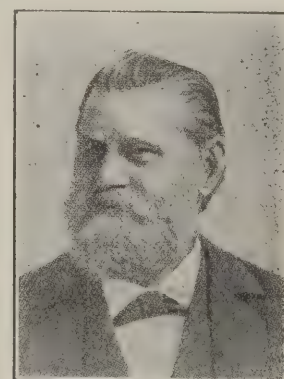
In 1883 the question of a manual for uniformity in preparations was again agitated in the society. Since the first manual of this kind was issued in 1852, the great abuse of ordering ready-made preparations and the numerous multiplication of such preparations of the same name by different manufacturers had created a state of affairs that forced this question on every thinking pharmacist. The German society was joined by the New York College of Pharmacy and the Kings County Pharmaceutical Society, the New York and Brooklyn Formulary resulting. This book became the property of the American Pharmaceutical Association and from it was developed the National Formulary.

In order to protect its members against blackmail the German society instituted its Rechtschutz (legal protection). In the years 1885 to 1890 there was a regular gang who tried to blackmail the druggists of New York by making claims of injury to members of their families through



OSCAR KRAUSE.

Once a Vice-President and always a philosopher of the Society; Farmer as well as Pharmacist.



PAUL ARNDT.

Chairman of the Entertainment Committee for many years; composer of original songs.

some imaginary error or omission that the pharmacist was accused of having made. It was on account of these men that this association was needed. A number of suits started against members of the association were defended, and the beneficial action of this "rechtschutz" soon put a stop to the work of these blackmailers. Later on, when insurance companies of high standing undertook similar

work, this form of protection became unnecessary, and it has since been discontinued, the association advising every member to take a policy in one of the large legal insurance companies.

The idea of buying goods jointly in order to be able to meet the inroads that department stores and cutters had made on the business of the members, also originated in this association. Various efforts were made, and a number of more or less successful stock companies were founded, until finally the now flourishing New York Consolidated Drug Company was the result.

In order to aid the families of deceased members in the payment of funeral expenses, an association has been formed within the society each surviving member of which pays a dollar at the death of any of the members.

Under the pharmacy law of 1898 the German Apothecaries' Society had the privilege of naming one of the five members of the Greater New York board, the New York and Brooklyn colleges naming two, each.

From the beginning of the association, the desire to have a journal representing its interests and giving space to its affairs had been agitated. A number of times this question was debated, but it was not until the year 1895 that practical results were obtained, when *Das Monats-Blatt des Apotheker Vereins* (Monthly paper of the Apothecary Society) was established under the editorship of E. C. Goetting. Owing to many difficulties from within and without, this journal existed only two years. Since then the *Deutsche-Americanische Apotheker Zeitung* (German-American Druggists' Paper) has undertaken to publish reports of the meetings of the society, and in a general way to advance its interests. As a representative of this paper and as a loyal, "hustling" member of the verein, Hugo Kantrowitz has done yeoman's service in furthering the interests of each.

It will thus be seen that in most events of our pharmaceutical life this association not only has been active, but has taken the initiative, and if all its ideals have not been realized, it only shares the fate of other pioneers in great things, which show the way, and leave it to later generations to take up the work and accomplish results. In many ways other than those mentioned it has showed its interest in pharmaceutical matters. From time to time visits have been made by the association as a body to various factories of pharmaceuticals or chemicals. Botanical excursions are not uncommon, and a number of collections and a pharmaceutical herbarium are in the possession of the association. A large library is also part of its inventory.

Members of the German apothecaries' society never forget those that are unfortunate or in distress, and many a time a needy brother has been helped by his confreres.

The influence of this society at the present time is great and far-reaching. Among its members there are seven of the committee of the revision of the Pharmacopœia, of whom four are chairmen of sub-committees and members of the executive committee. There is perhaps no other association in the country that can boast of so many prominent pharmacists whose influence is felt everywhere. And yet this association works quietly, and without any strenuous efforts at public recognition. It is the ideal of the founders that is indeed alive, and we trust that this ideal will remain living and active for generations to come.

Regular Monthly Meeting of the Society.

A meeting of the New York German Apothecaries' Society was held September 7th, President Kleinau in the chair.

After the minutes of the previous meeting had been read and accepted and the routine business disposed of, O. P. Gilbert, chairman of the entertainment committee, reported on the excursion to College Park and also announced that the preparations for the two festivals to be held in connection with the celebration of the sixtieth anniversary of the society had been completed. He asked the members to consider it their duty to be present at both entertainments.

Dr. Alpers as chairman of the society's delegates to the meeting of the American Pharmaceutical Association reported at length on this convention, at which the society had been represented by a large number of members. He said he hoped that many members would also participate at the Denver meeting next year. The report was received with much applause.

Otto Raubenheimer then reported on the meetings of the American Pharmaceutical Association's committee on the

National Formulary. He said that so much work had already been done in the various sessions that the manuscript very probably would be finished in three months and that the new National Formulary would be published in about six months.

E. A. Boetzel then made a short report on the meeting of the State pharmaceutical association.

After some applicants for membership had been elected a lively discussion in regard to the revision of the United States Pharmacopœia took place, Messrs. Alpers, Raubenheimer, and Roller being the principal speakers. The society decided to appoint a committee to examine all the publications of the revision committee and to report on them occasionally.

After G. T. Riefflein had thanked the society in the name of Sharp & Dohme for the artistically engrossed resolutions presented to the firm, the meeting adjourned.

The preliminary meeting to celebrate the sixteenth anniversary of the society was held on the evening of September 28th. The main entertainment, the fest-kommers, is scheduled for the evening of October 12th.

New York Retail Druggists' Association.

At the meeting of the New York Retail Druggists' Association held September 1st, the possibility of the Turley bill appearing again in the legislature was spoken of, and the consensus of opinion was that in such a case a repetition of the stubborn fight may become necessary, and that to be successful in it, members should learn to interest themselves in politics and at the coming election give their support only to such of the candidates as will promise to be friendly to the interests of the pharmacists.

On the question whether it will be advisable to reintroduce a bill prohibiting the giving of souvenirs in drug stores, the majority expressed itself in the affirmative, and as the successful issue would require a heavy outlay of money, for which the ordinary funds of the association are inadequate, it was voted to arrange during the coming season an affair which should be both sufficiently entertaining and a money-maker in the same time. A committee of ten was named to begin the necessary arrangements.

Several members reported that the board of health, after finding their spirit of camphor or tincture of iodine but slightly deviating from the standard, had subjected them to arrest and is holding them for special sessions court, with the possibility of a heavy fine and publicity. As a result of this, by a unanimous vote, a resolution was passed deprecating action of this kind, the regulation of pharmacy being provided for otherwise in the law, and calling on the board of pharmacy to show sufficient activity to "make the appearance of all other drug examiners both unnecessary and unwarranted."

The association went on record as fully endorsing Dr. Wiley.

Kings County Society.

The first meeting of the Kings County (N. Y.) Pharmaceutical Society since the beginning of summer was held September 12th, President Clarence O. Douden in the chair.

F. P. Tuthill, Joseph Kahn and Otto Raubenheimer, delegates to the New York State Pharmaceutical Association, the New Jersey Pharmaceutical Association and the American Pharmaceutical Association, respectively, made reports on the proceedings of those organizations.

There was some discussion of the forthcoming Pharmacopœia.

President Douden appointed the following members as chairmen of committees: William Muir, legislative committee; Charles E. Heimerzheim, trade matters committee; Otto Raubenheimer, pharmacy committee; William C. Anderson, Pharmacopœia committee; and Thomas F. Raymow, library committee.

Paint Men Elect Officers.

At the annual meeting of the Paint, Oil and Varnish Club of New York, held September 21st, the following officers were unanimously elected: President, A. G. Schumann; vice-president, H. J. Schnell; secretary, W. B. Templeton; treasurer, F. F. Cheesman; executive committee, L. Martin, Jr., chairman; H. Woolsey, Jr., John W. Masury, H. G. O. Dunham, R. O. Walker, H. A. Brewer, and the officers, ex-officio.

The Cost of Beauty.

It transpired in a recent widely heralded court proceeding that the fair plaintiff spent the modest sum of \$1,875 a year in disguising the ravages of time, trouble and tempests on face and figure. This amount, so an English beauty-specialist of renown told the *New York Herald*, is rather excessive; and—in London at least—women may be as beautiful as they may desire for \$500 a year. According to this authority a reasonable yearly beauty bill would be about as follows:

Water softeners (much in demand in London).....	\$500
Perfumes	125
Powders, creams and face lotions.....	125
Mouth washes and tooth powders.....	25
Manicuring and chiropody.....	250
Electrolysis	250
Face cleaning, once a week.....	150

Totals\$1,425

Changes in the Northwestern Faculty.

Following the retirement of Dr. Oscar Oldberg, the trustees of Northwestern University have appointed Prof. C. W. Patterson acting dean of the faculty of the school of pharmacy.

Prof. M. A. Miner has been appointed professor of pharmacy and director of the pharmaceutical laboratories. J. L. Clay succeeded R. G. Myers as instructor in the chemical laboratories, and will be assisted by Edward Park. C. P. Hoagland will assist Prof. Miner, and Jay Kaplan has been appointed assistant in chemistry.

In the August issue of the Special Bulletin of the North Dakota Agricultural Experiment Station it is reported that out of eighty-nine samples of spirit of peppermint collected during the past year from retail dealers and analyzed, fifty-four fell below the pharmacopœial requirement of oil of peppermint, and eighteen contained more than the required percentage of oil. Two samples contained about 20 per cent. of water. The weak preparations contained from 15.3 to 96.1 per cent. of the required amount of oil, averaging about 80 per cent. The over-strength samples contained from 7.6 to 23 per cent. in excess of the official oil content.

Influenced by reports that many people were buying methylated spirit from non-licensed venders and using the liquid as a beverage, the department of trade and customs of Australia has issued a regulation requiring that all the tax-free methylated spirit must contain 0.5 per cent. of coal-tar naphtha.

"Mrs. Mary McGrath, who died of a fracture of the neck of the fumer on August 26th, at Milwaukee, Wis., was locally reputed to have been born in 1796."—*Boston Medical and Surgical Journal*. 'Twould seem, from the nature of her injury, that the aged lady was a smoker.

Two Long Branch (N. J.) erstwhile partners, are warring merrily in the courts because one, it is alleged, did not fulfill his promise to teach the other pharmacy, and, still worse, would not let him off to attend a pharmacal school.

Phosphorus, combusting spontaneously, caused a bad fire in the store of Felix Resnick, of this city, September 10th. The druggist and his assistant were quite severely burned; and five firemen were overcome by the fumes.

A neat, tastefully printed folder recently received at this office announced the opening of Loveland's Drug Store, 133 West Ridgewood avenue, Ridgewood, N. J. P. R. Loveland, Phar. D., is the proprietor.

The firm of Trent & Pierce, Portsmouth, Va., has been dissolved, Mr. Trent continuing the business and Mr. Pierce taking a pharmacy in another location.

Herman A. Westphal, at one time the proprietor of the Junction Pharmacy, in Jersey City, N. J., has succeeded to the business of A. A. Taylor, of Summit.

The clerks of London, Ont., have organized an association, offered as follows: President, A. Kitchen; vice-president, J. H. James; and secretary, George Taylor.

The Riker Company recently opened its tenth Boston store and a store in New Haven, Conn., and is about to open one in Bridgeport, Conn.

The Louisiana excise men are rounding up the indiscriminate sellers of tincture of ginger as violators of the prohibition laws obtaining in several parishes.

Obituaries.

JAMES T. SHUPTRINE.

James Thaddeus Shuptrine, whose death was briefly noted in our columns last month, was born in Effingham county, Georgia, in October, 1850. His early years were spent in his native county, and there he secured his education. In 1869 he went to Savannah and entered upon an apprenticeship in the retail drug business. Eight years later he went into business for himself, laying the foundation of the Shuptrine Company, of which he was president at the time of his death.



JAMES T. SHUPTRINE.

Mr. Shuptrine was favorably known as a pharmacist and a business man throughout his native State and the South. In the affairs of the Georgia Pharmaceutical Association he always took an active part, serving it as secretary 1881-3, and as treasurer from 1900 up to the time of the 1911 meeting when he resigned because of failing health.

A man in whom were combined the characteristics of the old-time Southern gentleman and the modern Southern commercial leader, Mr. Shuptrine leaves many to mourn him. Besides his wife he is survived by a son Herman C. Shuptrine, president of the National Association of Retail Druggists, and a member of the Georgia Board of Pharmacy, who was associated with his father in business.

The following are the recently reported deaths of others in the drug world:

C. T. ABBOTT, of San Diego, Cal., August 18th.

WALTER W. BALDWIN, of Minneapolis, Minn., at Stillwater, September 10th, aged forty-two years.

ADOLPH A. BENOIT, of Putnam, Conn.

JOHN CALHOUN, of Bradford, Pa., August 23d, aged seventy years.

GEORGE C. DENNIS, of Rochester, Mich., August 24th aged fifty-four years.

S. P. FRANK, of Chicago, Ill., September 10th.

MANUEL HAVA, of New Orleans, La., August 23d, aged forty-seven years.

EMMET F. JENNINGS, of Cortland, N. Y., at Madison, September 7th, aged sixty-one years.

WILLIAM STAPLETON JOHNSON, of Henderson, Ky., aged seventy-one years.

J. R. MURRAY, of Kittanning, Pa., September 9th.

LEWIS ROSENHEIN, of Chattanooga, Tenn., September 3d, aged forty-seven years.

WILLIAM H. SANFORD, of Newark, N. J., August 31st, aged seventy years.

HARRY C. STEWART, of Pittsburgh, Pa., at Moundsville, W. Va., August 26th, aged forty-five years.

GEORGE E. TAYLOR, of Leadville, Col., August 24th, aged fifty-eight years.

FREDERICK A. TURNER, of Portland, Me., August 27th, aged sixty years.

GEORGE H. WELSH, of Boone, Ia., at Clear Lake, September 11th.

JAMES D. WILSON, of Lexington, Ky., August 20th, aged fifty years.

Joseph Tetlow, of Philadelphia, Pa., manufacturer of toilet powders, died August 20th, at Amityville, N. Y., aged forty-eight years.

The Jacobs Pharmacy Company, of Atlanta, Ga., has purchased the three stores of T. H. Brannen, located in that city, for a consideration reported to be between \$50,000 and \$60,000. This move gives the Jacobs Company ten stores.



DRUG STORE MERCHANDISING

Mail Order Competition.

Druggists Could with Profit Adopt Some of the Methods of their Largest and Fiercest Competitors—Experiences of One Druggist Who Woke Up Because He Had to.

BY A TRAVELING MAN.

Mail order people distribute big catalogues through the country. The country people exchange experiences concerning the ordering of the goods. The low prices, as compared with the prices usually charged by the local druggist, astonish them and appeal to their way of thinking, even though the tempting pictured article in the neat catalogue may be quite inferior. The goods upon arrival may be underweight, poor in make-up and not worth the price paid. But the average patron of the big department store mail catalogue does not let up on patronizing the mail order company because of these reasons.

Mail order firms derive enormous gains by encouraging their patrons to buy goods in such bulk as will justify their shipment by freight and thus to save postage or express charges on small packages. Many a farmer has been known to order much more stuff than he knows what to do with in order to save fifty cents in express and have a bulky package come by freight. Druggists in country districts have all they can do in these days of mail order traffic to compete with the large city houses. They may carry better goods and may be reasonable in their prices, but the mail order catalogue will always be in the possession of their customers, and they will hear quotations from it frequently. Hence the average proprietor of the drug store in the small town or country village is studying how to keep his business at home.

In one case a druggist was selling staple lines of druggists' supplies at fair prices, and extending the usual credit to his patrons. But the catalogue infection got into his town, and his receipts fell off. He decided to make a study of the causes and effects as it made him feel like apologizing for being in business for people about him to buy so easily at seemingly lower prices by simply filling in a blank form and purchasing a money order, and forwarding them to the mail order concern. He sent off for the catalogues, studied their contents for many days, and then took a trip to the city for personal investigation.

He inquired into details so minutely as to make the salesman wonder, as he purchased articles here and there.

At last he summed up the results. He found that each large mail order house had a buyer in nearly every section of the country picking up bankrupt stocks, auction stocks and low priced wares; that many of the houses took the entire output of certain factories manufacturing a special line of goods; and that some of the houses had manufacturing plants of their own. He found organization everywhere. Goods and prices were well displayed in all advertising matter issued by their houses, and exchanges of unsatisfactory goods were made when desired. He found that the mail order people studied the pleasure and comfort of the patron every time, whether the patron was on the ground or a thousand miles away. The druggist returned home, and decided to adopt some of the plans of the mail order houses. He concluded that the only chance to compete was to make the local store as attractive as the mail order house in some distant city. He cleaned up his store, had a new lighting system put in, and the front torn out and large plate glass windows substituted for the old-fashioned panes. He set painters to work inside and out, and invested in new fixtures and devices. He then put in stocks of goods to compete with the catalogue houses, and at the same time took care to have stock of a high grade. He attempted to adopt as many of the good ideas of the mail order houses as possible without adopting any of the detrimental ones. He instructed his clerks to give every thought to the comfort of the patrons, and then saw that they did it. Unsatisfactory articles were exchanged without any quibbling. Prices were made as low as possible. New goods were constantly put in. The show window was made attractive. The advertising was increased.

This man is now doing a very comfortable business in competition with the mail order houses.

Quality as a Business Builder.

Friends make a business; customers who buy only once and then say "Never again" kill a business. Therefore, preach quality first and last. It may mean a bigger strain upon the salesmanship of the clerks, for there are a great number of people who do not realize the necessity of quality. The dealer may even have to educate his whole district, but while he is doing this he is making his progress solid; he is making friends, and if cheap goods are being sold in his district he will in time gather in those who have been bitten.

Cheap goods sell once; good goods sell always. Do not forget that. Let it sink in hard and fast.—*New Idea.*

Is Advertising an Expense or an Investment?

Financial Returns from Judicious Advertising—The Value of Knowing How—Advertising to Be Selected with Care—Some Models for Druggists' Copy.

By M. P. GOULD.

Advertising is very much like any other art, or profession, or business. Those who are so short-sighted or inexperienced as to look only at the surface are very apt to be misled.

If you watched an experienced and skillful surgeon operate you would feel that you could walk right up and take the instrument out of his hands and do just as he is doing, because it seems so easy and simple for him.

If you had seen the international tennis match between the English champion, Dixon, and the American champion, McLoughlin, you would at first have been disappointed because neither one seemed to be making much effort; yet each was displaying the most consummate skill in placing the ball in exactly the right place. If you had watched them you would have felt sure that you could step right out on the court and do as well.

When you hear a great orator, his language is so simple, his manner so natural, his inflection so appealing that you feel that you could step out before the audience and move them as he does.

You read in the papers that a man who invested one dollar in the Calumet and Hecla Copper Mine has stock now worth \$30,000 in return for that one dollar invested.

You read that Andrew Carnegie, a poor boy, has earned some money, then invested it in steel companies and gradually worked up until now he owns \$300,000,000 worth of steel corporation bonds.

You read that the owner of one of the most successful cereals on the market was a very poor man and regarded as a failure in life, until he got hold of the way of making this cereal. He almost mortgaged his own soul to get the money to begin advertising this cereal. He now is said to spend nearly a million of dollars a year in advertising, and when his daughter was married, he endowed her with \$3,000,000. No-

body knows how much he is really worth now.

It all looks easy. The surgeon's skill looks easy. The tennis champion's skill looks easy. The orator's skill looks easy. The investor's skill looks easy. The advertiser's skill looks easy. Yet if the truth were known, nearly every great achievement represents the most persistent and self-sacrificing effort. It represents the courage to keep on. It represents a stout heart that will not give up when everybody else loses faith. It represents almost unbelievable self-sacrifice—the subserving of almost all other ambitions and pleasures to the one thing desired.

All of this preliminary is to try to get you to fully appreciate the fact that to most of us—ninety-nine out of one hundred—advertising is an investment. It is not a gamble. It is not a "flier." It is not even an expense. It is a plain simple investment.

As an investment, advertising should be considered very carefully. If your banker should some day tell you that he could sell you the bonds of a local street car company, or water works, or lighting company at 80, and that they would carry interest at five per cent., you might be inclined to look into his proposition. If that banker were

Says the Doctor

"When I diagnose an ailment and write an order for suitable medicines, I expect certain results if the druggist does his part by carefully compounding purest drugs."

And the Patient

Selects his druggist as carefully as his doctor, and trusts that druggist to serve him equally with the doctor.

If we put up your medicines both doctor and patient are satisfied.

(Name and address)

How to Mark Table Linen

Leave the baby and some jam alone at the table for ten seconds.

Of course there are other ways to mark linen—and many ways to stain any fabric. Accidents will happen.

Cleanse cloth without injury to color or fabric.

We have a clothes cleaning compound that will cleanse all cloths—silks, linens, woolens and cottons—without injury to color or fabric. Saves time, labor and money. Removes all sorts of stains. A good thing to have handy. Get some today.

(Name and address)

Confection Perfection

The kind you like, in the way you like
—in bulk or boxes.

THERE'S a difference in candies, not only in looks but in taste—and what a big difference there is in quality. We think we have real candy perfection—purity, richness, cleanliness and quality say so. We want you to decide this yourself by trying some of our confections now. In bulk or in boxes as much as you want.

Right next to the Fountain.

(Name and address)

to offer you some mining stock at nine cents on the dollar and promise you that it would pay two hundred per cent. dividend, you would stop banking with him, you would believe that he was either a crook or an unreliable banker. In either case, you would not want to deal with him.

If, therefore, an advertising man comes to you and tells you that should you invest \$100 in the advertising of your store in his paper, it would bring \$5,000 profit to you, it would be your duty to look upon him as either a faker or ignorant of the province of advertising or wholly unreliable.

Now, do not forget that enough advertisers do get \$5,000 back on \$100 investment; but the probabilities are that if you get twenty per cent. dividend on what you invest in advertising, you will have made a splendid investment.

I imagine that a great many retailers feel that if they could not get twenty per cent. back from their advertising investment, they would never go into it. Nevertheless, there are very few other means of investing money that will yield twenty per cent., or even one-half of twenty per cent., and be safe.

Some retailers who advertise do not increase their business any; perhaps their sales decline. When you study a case of the latter kind you will nearly always find that the neighborhood is changed, or a better store has come into the locality, or the store-keeper is getting old, or he does not employ good clerks, or some of his employees are taking his profits, or he is not a good buyer, or his stock is not kept up. There are dozens of causes for the failure of advertising to produce. Very often advertising does not produce because the particular advertising used does not fit the store advertised. In that case every person who answers an advertisement does not find in the store the things to be as advertised—that is, he finds that the advertisement is not truthful; that therefore, the store itself is probably not reliable; that it is not a good place to trade. Therefore, to advertise in such a way is a successful method of driving trade away from a store. Another kind of advertising could have been prepared—a kind making use of the exact conditions of that particular store and calling attention to the store's real service. In such cases, the customer would find that the store tallied with

15 DEPARTMENTS

Make the Most Complete Drug Store
Possible, where Everything Drug-
storey is to Be Had.

“Get It Where They’ve Got It”

WITH every necessary department, “The Complete Drug Store” is in a position to supply all your drug store wants. Our accommodations, appointments, conveniences and facilities are the best; you will find satisfaction here. We offer you:

1. Expert Prescription Service
2. Rare Drugs and Chemicals
3. Surgical Instruments and Appliances
4. Guaranteed Rubber Goods
5. High-grade Toilet Wares
6. Distinctive Stationery
7. Veterinary Supplies
8. Tempting Confectionery
9. Photographic Supplies
10. Selected Cigars
11. Delicious Soda Water and Ice Cream
12. Satisfying Cutlery
13. Telephone Buying
14. Mail Order Opportunities
15. Rapid Delivery Service

WE PLEASE YOU

Every effort is made to please you. We have the goods—we give you the service. Prices always right. :: :: :: ::

YOU TRADE HERE

Trust us to take care of your drug store wants, and know we will never disappoint you. This is your drug store. :: ::

(Name and address)

the advertising, that the advertising was truthful, that the store must therefore be reliable, and therefore a good place to trade.

The writer has seen some marvelous results from retail store advertising. He has seen a clerk start a new store in competition with his old employer, spend \$100 in advertising, take in \$270 the first day, and have a regular business thereafter considerably bigger than that of the old store which he had left. But the clerk knew the conditions of the old store exactly; knew wherein it failed to serve the public of its locality; and deliberately planned a store which by contrast would make the old store seem out of date and wholly unsatisfactory. The advertising of the new store was also made to attract attention to the superior facilities of the new store in the lines wherein the old store was deficient.

However, taking advertising as a whole and in general, the store which has an established trade, which is holding its own, which can successfully compete with other stores in the vicinity, ought to be happy if it received twenty per cent. return on its advertising investment—such return to be clearly traceable and known. Because for every dollar of direct return from advertising, there should be \$10 or \$15 indirect return. Your trade increases. Only a small percentage of that increase can be traced directly to advertising. As a test, some day advertise some popular article. Your advertisement may cost you \$20. You may sell \$10 worth of the article advertised. Deducting the cost of the advertised article from the profit on that article you will have about \$3.50 actual direct return to apply as a dividend on your \$20 investment. Yet look at your total sales for that day. You will find that for some reason they are large. You can trace only \$10 of direct sales to the advertising, yet your total sales have increased \$35 or \$40 or \$50 or \$100. Where did the extra come from?

In general advertising, such as is done in magazines by national advertisers, it is common to regard one reply for every dollar paid for advertising as a very fine showing. Indeed many a man who pays \$5,000 for advertising will only get three or four hundred replies. Yet his business will increase. He will open up accounts with a large number of dealers who never favored him before. His business will show a very healthy condition. He will feel that the \$5,000 was well invested; that he got an adequate and satisfactory return for that investment. Yet he gets a smaller percentage of direct traceable returns than does the retailer.

If you will consider your advertising as an investment, and guard it exactly as you would if you were buying five per cent. gold bonds, then you will get far better results from your advertising; if you would regard advertising as an investment, and expect only a small safe return, then all that you get over that will be so much condensed inspiration to make you push forward with more ambition and more desire to get a better service and to be somebody in the world of retail merchants.

When a retailer becomes firmly convinced that advertising is an investment, then he studies various advertising policies, trying to determine what policy will attain the biggest success in three or five or ten years.

Nothing is more unwise than to put an advertisement in the paper to-day and expect it to give you a big day's business to-morrow. The farmer does not plant his corn to-day and go out to husk it to-morrow. He does not drill in his wheat to-day and go out next week with his self-binder to cut it. He knows better. Nevertheless the country is full of merchants who disregard all the natural laws of investment returns the moment they take hold of advertising. They seem to think that advertising is a magic wand to wave over the commercial world and bring sacks of money to them. Is it not about time to wake up? The story is told of one of the biggest and best known manufacturing plants in the world, that the president, the treasurer, the advertising manager and the sales manager devoted two entire days to the writing of one advertisement of 250 words, which was to be mailed to a million business men. Of course, the ten dollar a week advertising writer would have dashed off those 250 words in ten minutes, but the officers of this great corporation, with its thousands of employees and its hundreds of branches, considered advertising as such a tremendous investment that all their duties could be dropped and the head officials could have two days' labor over all of the ins and outs and the pros and cons and the advantages and disadvantages of every word in the 250, so that when that

announcement went to the business world, it would reflect the brains of that entire organization.

What policy are you pursuing? Are you filling your advertising space from day to day with the product of the mood of that moment, or are you spending days in determining the policy of advertising that will ultimately make your business most successful? Then, are you strengthening your courage to proceed in that kind of advertising, month after month, until your judgment shall be amply justified and the crown of success will come to you for your foresight and shrewdness?

It is worth working for. Who cares anything about being an "also-ran"? Who wants to sit by and have Jack and Tom and Jim and Harry spoken of as the big successes in their town—in their line—and nobody ever refer to himself or point him out as the leader in his locality? The man who is satisfied with that kind of ambition is the sick man—his body is sick or his mind is sick. For such a man has a dead ambition.

Advertising is the most democratic thing in the world. The greatest store in the greatest city advertising in the greatest newspaper cannot prevent the smallest store in that city from putting its little inch advertisement in the same paper. No matter what store in your town is bigger than you are, you can buy space in the paper in which it advertises. You can appeal to the same people who trade at that store. You can ask them to come to your store. Your advertisement will be read. If you have advantages, you can tell what they are. Nobody can prevent you from properly putting your store before the buyers of your locality.

That is the thing that through years and ages people have been waiting for and wishing for. Any dealer can be himself. He can make just the kind of a store that he wants to make. He can advertise it in the way that will make the kind of reputation he wants his store to have. He can cut out his own future and develop his store along the peculiar lines that please him most. There is nothing to prevent it. If he has not the money it simply takes him longer. Money is not what holds a store-keeper down. Lack of ambition is what keeps him down—lack of brains. Men are not created equal. Men are not even created with equal opportunities at the start, but in this country every retailer has an opportunity to advertise his store. The means of advertising are so varied, so simple, so suitable to every demand that each and every retailer can find a form of advertising which will just fit his case. Then, if he studies his whole district or locality, studies the other stores, sees just where their weak points are, he can make his store overcome those weak points. Then he is using the same kind of intelligence that he would use if he were going to invest all of his money in bonds or stocks.

When a majority of retailers will study advertising as an investment and put their money into it as though putting it into sound securities, we are going to have far more satisfaction with advertising, far better results from advertising, far more faith in advertising.

Honesty as Policy.

Within ten years' time the thought has gone through the entire business fabric that to cheat and get caught is really a worse calamity than to get caught. To be caught means that you are headed for the precipice on the high clutch and down grade. To cheat another is to cheat yourself.

Theology did not teach us this, for precept and preaching never touch our lives. We shed them. We are moved in only one way, and that is by self-interest. Cut off our food-supply and we are no longer apathetic.

And self-interest is a form of selfishness; it is the desire for life. It is the instinct of self-preservation in action. It was all a matter of mental growth, evolution. The discovery of truth as our most valuable business asset is the one great achievement of the age in which we live. For truth there is no substitute, and this discovery was made by business men.—Elbert Hubbard.

It pays to study the advertising pages of the publications of national circulation, and to put to the front the seasonable goods which readers of these pages may have been more than half induced to buy. When the dealer with the goods and a man or a woman with an inclination to buy, meet, the cash register bell should ring and a profit be written on the books.

Good Treatment for Drummers.*

"Civility" is a word that can be made to cover a multitude of faults. If there are any good judges of human kind, they are the traveling salesmen, whose vocation takes them to all parts of the land, and among all classes of people. It may be said that the average commercial traveler appreciates kind treatment fully as much as he does an order. He is out to sell goods, and in most cases to sell them he must show them.

There are many merchants who look upon the traveler as a thing of annoyance, and through their short-sightedness cannot discover that there is scarcely a man on the road but is a walking work of reference, and filled with information that is particularly useful to the man in trade. You may be stocked up with all kinds of goods. You may have a lot more on the road and feel that you would be taking up the traveler's time and your own to no advantage, should you stop to talk with him for a few minutes. With this foremost in mind, you cut him off short, treat him as if he had no business in the store, and perhaps he goes out ready to tell the next brother traveler that he meets what a boor you are.

Brother retailer, it always pays to be civil. It is less wearing on the nerves, and makes a far better impression upon those you meet. Use the glad hand freely. It doesn't cost you anything other than a minute or two of your time. Then, there may be some good thing that the traveler has up his sleeve and may make some money for you if you will only stop and listen. Anyway don't be grouchy.

Pushing a Line of Home-Made Toilet Preparations.†

Every pharmacist ought to run a series of his own toilet preparations. It is on the individual note that the pharmacist scores. The frequently recurring question, "Is this your own make, Mr. —?" shows the value the public attach to the pharmacist's personality. It is his strong point; it should mark all his dealings; it should be suggested by everything in his pharmacy, and by everything that goes out of it. Nowhere is there greater scope for it than in the field of the toilet specialty. Yet how infrequently does one find this utilized.

A toilet series may consist of perhaps four lines, or it may run to a dozen. A good title is essential. Sometimes the name of the pharmacy may be used with advantage. When one can be sure that one is the first in the field, the name of the town or district often does more for the sales than realms of advertisement copy. The pharmacist's own name is in many cases the most useful title to adopt. The fancy name, though when carefully chosen often very distinctive and attractive, needs warily seeking for. "Madame A—'s —" and "Professor B—'s" are played out, and a truly original name is difficult to meet with. I suggest, for convenience, that we make "Le Beau" our man, and that we choose as many preparations as will be most suitable to our own business from the following: Liquid dentifrice, dental cream, modern dental powder, skin cream, cold cream, benzoin cream, shampoo powder, liquid shampoo, hair wash, toilet paraffin, and brilliantine.

To deal with the dentifrice first. A liquid dentifrice offers a scope for much discrimination in the flavoring and can be easily put up in a neat and classy style. Moreover, it shows good profit. Here is my formula:

LIQUID DENTIFRICE.

Salol	℥ss.
Spt. vini rect.....	℥xxviiij.
Ol. menth. pip.....	℥iss.
Methyl. salicyl.....	mx.
Ol. caryoph.....	mxxx.
Ol. cassiæ.....	mxxv.
Saccharin (soluble).....	℥ss.
Aquæ dest.....	℥xij.

A salol preparation needs careful adjustment. The proportion of saccharin is a delicate item; this dentifrice should not suffer from over-sweetness. A sweet dentifrice is sickly; 15 grammes to the pint of 60-per cent. spirit makes a preparation sweet enough for the general taste. It should be colored with magenta solution. Le Beau's dentifrice becomes its own advertiser; a delicate red tint and a neat little label—the plainer the neater—on a heavy

paneled bottle. At present prices this will cost about 7 shillings [\$1.75] per quart. Using 2½-ounce bottles at 12 shillings [\$3] a gross, and 5-ounce at 15 shillings [\$3.75], and selling at 1 shilling [25 cents] and 1 shilling 9 pence, [43 cents], the profit works out at 92 per cent. and 95 per cent., respectively on the outlay.

DENTAL CREAM.

Mellis	℥xxviiij.
Aquæ	℥xl.
Liq. cocci cact.....	℥iv.

Melt the honey, mixed with the water and the liq. cocci, at a gentle heat, then strain through a fine sieve. Raise the mixture nearly to the boiling point, and add the following ingredients, previously intimately mixed:

Pulv. benzoin.....	℥j.
Pulv. rad. iridis.....	℥iv.
Calc. carb. præcip.....	lb. j.

This should be heated on a water-bath for one hour. When cooling, but before it has become too stiff, add:

Menthol	gr. xx.
Ol. gaultheriæ.....	℥ij.

Dental cream requires care in the filling of the tubes. A leaky tube is the worst of advertisements and a danger to all stock in its immediate vicinity. With care it can be made a good thing. Here again the secret of success lies in the flavor. The above is good. The following is my

MODERN DENTAL POWDER.

Thymol	gr. x.
Spt. vini rect.....	q.s.
Cretæ præcip.....	lb. j.
Pulv. os. sepiæ.....	℥iss.
Pulv. sapo dur.....	℥j.
Mag. carb. pond.....	℥liij.
Magnes peroxid.....	℥vj.
Ol. rosæ geran.....	℥ss.

To insure thorough admixture the thymol should be rubbed down with a few drops of spirit and a little chalk, and then well incorporated with the rest of the powders. If the peroxide is rubbed up with the os sepiæ its complete diffusion through the whole will be facilitated. Every care must be taken to keep the ingredients perfectly dry; a very slight trace of moisture will cause loss of strength in the active principle.

The tall, American-pattern, nickeled-metal boxes, which are indispensable where the bulk of the powder has to be kept perfectly dry till it is taken for use, can be obtained at about 3 shillings 9 pence [93 cents] per dozen; they hold about 3 ounces. I find that, using 1 pound of chalk, the cost works out at 1 shilling 6 pence [37 cents] per lot, making seven boxes. Selling these at 1 shilling [25 cents] gives a profit of 100 per cent. on the outlay.

A GOOD SKIN CREAM

and especially a rub-in-smooth cream, is a sure seller and a handsome profit-carrier. There are several preparations on the market at present which are offered as a base for this class of cream. Such as I have tried are very good, and make useful creams. The original stearin formulas are excellent, but need much care in preparation. My formula is:

Dissolve 180 grains of sodii carb. in 10 ounces of water and add, melted, 2 ounces stearin. Boil the mixture for ten minutes and add liq. hamamelidis, 10 ounces. Raise this to boiling, stirring constantly, and when well frothed pour into a large jar and whip well with an egg-whisk till cold.

The whole success of the preparation lies in whipping plenty of air into the liquid at first. It is better to have the cream at least twelve hours before adding perfume, as there is often a slight settling down of the mass. Half a dram of ess. rosæ gives a distinctive odor. If a good perfume is employed the scent is better than can be obtained by the use of the pure otto. It is a good plan to prepare this cream in several varieties; a lavender scent is something new, which I have found appeals to some ladies; an eau-de-cologne cream is also a satisfactory article. What I have found almost more successful than any other scent is a delicate blend of coumarin and heliotropin. This skin cream can be put up either in white celluloid-covered pots, or more effectively in fancy glass jars. A special name seems to help the sale of this line considerably. I suggest that for this series we dub it Le Beau's dermic snow. That has settled it as a sure seller! The addition of 3 drams of liquid paraffin, the reduction of

* From the Price Current.

† From the Chemist and Druggist.

the hamamelis to 2 ounces, and the substitution of a couple of drams of tinct. benz. simp. give a splendid *benzoin cream*. With this quantity of tinct. benz. other perfume is unnecessary.

SHAMPOO-POWDER.

formulas are much alike. The quantity of alkali should not be more than 25 per cent. I have known shampoos, with a considerable sale, which consisted of at least 50 per cent. sodæ carb., but in use they proved very harsh. It is better to give an excess of borax. One pound each of borax and soap-powder with about 4 ounces of sodæ carb. give the best result; 15 grammes of coumarin with half the quantity of heliotropin gives a perfume which is much admired. Put up in plain neat envelopes and boxed in sevens to sell at 1 shilling [25 cents], this line scores by its distinctive scent.

Le Beau's antiseptic liquid soap is simply a 75-per cent. solution of soft soap in alcohol, scented with ol. lavandulæ, and made antiseptic by the addition of 1 per cent. of acid. carbol. liq. [This may cause gangrene when applied to wounds (see page 573) and should be replaced by some other antiseptic.—Editor THE DRUGGISTS CIRCULAR.] The word "antiseptic" takes the public fancy. A large sale cannot be expected for a liquid soap, but a good deal can be made out of it by pushing it for shampoo use, etc. It pays to sell it where possible.

TOILET PARAFFIN.

has some devotees, and may be thought worthy of inclusion in the series. It is simply liquid paraffin scented either with violet or the coumarin-and-heliotropin combination. The same note applies to *brilliantine*.

ADVERTISING.

Now as to advertising. It is unnecessary to do much. Give a prominent place, on your counter or show-stand, to Le Beau and his goods, and recommend him to the hesitating customer. Let his goods be sold more on your recommendation than for any other reason. Keep him well to the front and let him wear always the air of being Le Beau—something superior, something classy. Let him be the aristocrat of your stock of toilet preparations. His goods are sure to sell. Get out a neat little folded card, if you like, and tell off the points of his things therein.

Getting Rich in the Drug Business.

One of the quickest and easiest ways to make money is to borrow capital from the bank at 5 or 6 per cent. and invest it in some way that will make it yield two or three times that much, or even more.

Suppose, for instance, a druggist is doing a conservative little business which yields him a net profit of \$1000 a year after paying him a salary of \$100 a month. This druggist borrows, say, \$10,000 from the bank, invests it in fixtures, a larger store and advertising, and so increases his net profit to \$2500 the first year. He pays the bank \$500 for interest, and still has \$1000 a year more than before. By putting this \$1000 back into his business, his extra profit is still greater the next year, and so on until the annual profits of the store amount to \$5000. In the mean time partial payments have been made on the \$10,000 loan, reducing the interest as well as making the principal smaller and smaller until at the end of ten years the debt has been liquidated and the store is doing five times the business it was before the venture was made.

Of course not every druggist could do this. Doubtless many a man would lose not only the \$10,000 borrowed, but the store which he put up as collateral. But that some shrewd young business chaps have succeeded in doing practically what is here outlined there is no denying, and that others are doing it and still others will do it none can gainsay. The man who doubts his ability to "make good" had better stick to his \$1000 a year business, which is not bad, while the one who feels cramped by small quarters and dissatisfied with sales of from \$15 to \$25 a day, and knows that he can do better and that he is going to do better, can probably raise the money and become the head of a \$100-a-day business.

Post cards sell themselves, although a little pushing of this line shows results. The stock should be kept up-to-date, both as to designs and cleanliness. The profit on post cards is large, and very often the sales mount higher than five or ten cents per customer.

The Cost of Doing Business.

Many Items of Expense Frequently Overlooked by the Druggist—Discounts, Depreciation, and Proprietor's Salary—Rule for Determining Gross and Net Profits.

By E. FULLERTON COOK.

While there is an increasing recognition by druggists of the necessity for knowing absolute cost, that a profit-making selling price may be determined, yet there is room for renewed emphasis and more discussion. The golden key which unlocks with certainty the storehouse of profit in modern business is intelligent and scientific management.

Much has been written and preached about advertising, including store arrangement and window displays; many new plans for buying goods have been offered and put into successful operation; and these are of great importance, but they are only part of a manager's problem. Before him stands the whole ultimate question of profit and to conduct the business so that all divergent forces are harmonized and this result accomplished must be his constant endeavor.

The right proportion of "first cost," expense per cent., and profit per cent., in the fixing of the selling price, scientifically applied, assures this result, and is the real question for adjustment.

FIRST COST.

No attempt will be made here to discuss the "buying of goods," however important a factor that may be in profits. Needless to say the cheaper the price for which the goods can be bought by the dealer, quality being equal, the more likelihood there is of a profit-making and sale-inviting price at retail.

CASH DISCOUNTS.

In this connection "cash discounts" may not be overlooked. A few years ago they were ignored by druggists generally, but the testimony of many to-day who are successfully solving the bigger problem of profits has proved beyond a doubt its advantages. It means "best buying prices," good service, independence, profits and, most important, freedom from the harassing worry attending unpaid bills and accumulated debt.

EXPENSES.

Expenses big and little should be under absolute control. They should be systematized, classified and, so far as possible, anticipated. At the beginning of the year, when percentages are being figured for the fixing of a profit-producing selling price, all expenses not fixed should be estimated from previous experience, appropriations made and accounts opened, care being taken to see that the appropriation is not exceeded if the expected profit is to result.

FIXED EXPENSES.

There are certain fixed expenses in all businesses. These should be carefully determined. The following are the most important:

Rent.—This must be charged if the property is owned by the store proprietor as conscientiously as if paid to a landlord. A rental equal to that obtainable in the neighborhood for similar property will be a satisfactory guide to the amount to charge.

Clerk Hire.—This important item requires constant attention; certain stimulating expedients often make it possible to reduce the expense through the securing of better service from a less number of assistants. This involves the much-talked of science of efficiency.

Insurance.—Few business men can afford to ignore insurance. It is a necessary and legitimate expense and should at least include fire and indemnity insurance, the latter being exceedingly valuable since it affords protection in case of errors, or a claim of error with attempted blackmail.

Taxes and Licenses.—These must be included with other expenses.

Telephone.—An expense of every modern business.

The preceding are the more common fixed expenses, but there are others not always recognized, as:

Proprietor's Salary.—A stated amount should be charged regularly as salary for the proprietor if he is giving his time to the business. If he is not devoting his energies to the work of the store he is certainly paying some one

else to do it, and it is but fair that he who does assume the responsibility, work, worry and risk of loss should be the best paid man connected with the business. He should not wait for expected profits to give him living expenses.

Interest on Investment.—This is another item of expense which is often ignored, giving false ideas of profit. Of course, if the store is being conducted with borrowed capital the interest is charged to expenses, but it is equally legitimate and necessary to charge interest for investment when the capital is supplied by the proprietor.

Fluctuating Expenses.—Besides these fixed charges there are many others that arise from time to time, some seemingly trivial, but all worthy of careful accounting and watching. In fact, where business is planned on a low percentage of profit these incidental expenses may unwittingly increase until they have entirely swept away gain which might have been expected. It is recommended, as has already been suggested, that appropriations be made at the beginning of the year for such expenses, and that these expenses then be regulated so that the year's close will not find the appropriation exceeded.

There will be many leaks stopped if all know that a strict accounting is being kept of every cent expended. Items belonging to this class are light, heat, stationery, labels, stamps, delivery, freight, drayage, advertising, donation, shortage, breakage, failure to charge and bad accounts, which are difficult to estimate, but cannot be ignored; careful management, however, will reduce them to a minimum.

The importance of guarding against unnecessary expense is emphasized by a moment's study of profits. Suppose the sale of \$100 worth of goods figures out about as follows (and this would be considered an unusually good average for the retail business): First cost 70 per cent., expense of selling 20 per cent., net profit 10 per cent. It can readily be seen that \$5 saved in expense is equivalent to the profit on \$50 worth of goods sold over the counter and, if the profit per cent. is only 5 per cent., the saving of \$5 is equal to the profit on \$100 worth of goods.

Such a viewpoint puts a new light on expense, and every clerk should be made to see expenses in this light.

Depreciation.—Depreciation is another item which must be counted in the year's expense. Usually 5 per cent. is counted off the value of fixtures and about 10 per cent. from the soda water apparatus, while it is often necessary to allow for depreciation in sundries. This is based upon the likelihood of entire replacement of fixtures within twenty years and the buying of a new soda fountain in ten years. It is practically creating a sinking fund, a sound business principle.

PROFIT.

Knowing the first cost of goods sold throughout the year and the expenses incurred, from all sources, to place such goods in the customer's hands, it is not difficult to determine the percentage ratio between cost and expense. Unless there has been added to the "first cost" at least a percentage equal to the percentage of expense, in fixing the selling price, there has been a positive loss for each sale. But a business man cannot be satisfied with only covering expenses; he must make a profit. He must add to his "first cost" the percentage of estimated expense and then the percentage of profit he desires, and this will give him a properly determined selling price and insures a legitimate profit. I say a "legitimate profit," and a man in business is justified in expecting a fair profit, for it is a sinking fund upon his own life which will probably become incapacitated, on the average, in from twenty to thirty years.

A profit is really figuring depreciation on life, making it possible to retire with some accumulated reserve after a reasonable number of years of activity.

INVENTORY.

This, however laborious it is to take it, is necessary for a right adjustment of the various interests of business. The drug business has been slow to recognize this, but right business methods are being introduced in many stores and its worth is acknowledged. Not only does it insure a correct statement of the condition, but it keeps the stock from stagnating, helping to prevent accumulations which are often deceptively figured among the assets.

FIGURING PROFITS.

The important factors for determining profit are the inventories at the close of the preceding year, the current

inventory, the "first cost" of goods bought during the year and the total expenses of conducting business during the same period. With these factors determined the following rule will show gross profit or net profit:

RULE TO DETERMINE PROFIT.

First deduct from the year's purchases any increase in the stock or add to the year's purchases any decrease noted by comparing the inventories, thus determining the cost of goods actually sold. Then:

The gross profit is obtained by subtracting the cost from the year's sales.

The net profit is obtained by subtracting the expenses of the year from the gross profit.

It may be graphically shown as follows: Let S equal sales of year; C equal cost of goods sold; E equal expense to do business.

Then $S - C =$ gross profits, and $S - (C + E) =$ net profits.

"Chain" Stores Do not Mean the Extinction of the Small Retailer.

At the recent meeting of the New York State Pharmaceutical Association C. A. Drefs, Sr., of Buffalo, read a paper entitled "Competition of the 'Chain' Store." In the discussion which followed the reading of this paper diverse views were expressed, as was to be expected. This discussion is reported in the CIRCULAR for July, page 389, under "Fourth Session, Wednesday Afternoon."

Mr. Drefs himself expressed the optimistic view that great possibilities are open to the individual druggist who will strengthen the personal equation in his business. He believed that men still outrank methods in influencing the public to make a success of a drug business.

Members from this city were inclined to be pessimistic on the subject, but Thomas Stoddart, another Buffalonian, whose personality, together with that of his brother, had enabled them to build up a magnificent business, considered the "chain" store to be a stimulant rather than a depressant to the retail druggist, and placed a high value on personality.

H. B. Guilford, of Rochester, at that time president of the National Association of Retail Druggists, contended that the tendency to "fly too high" at the start wrecked many projected drug businesses. He said that opportunities in drugdom were never so plentiful, if the druggist will but apply himself strictly and earnestly to business.

Prof. W. C. Anderson, of Brooklyn, expressed the belief that such competition as the "chain" stores represented did not apply to any extent to the real pharmacy of the drug business and therefore the individual druggist's effort should be to expand this part of his trade. He praised propagandic work as a very helpful undertaking in this connection.

To the foregoing may be added that a leading spirit in one of the big "chain-store" enterprises in this city has said that the big down-town cut-rate stores have helped the small retail druggists by preventing the shopping public from stampeding from the drug stores to the department stores for its toilet articles, druggists' sundries, fancy goods, and even drugs and medicines. The public being induced to continue purchasing at drug stores, he argued the smaller establishments receive a greater share of the patronage than they would if the department stores were permitted to have things all their own way. Maybe there is something in this.

One druggist clips advertisements from the prominent periodicals every few weeks and pastes them on his windows. At the top of each group is the cover, with a few of the advertisements taken from it pasted below. From each of the advertisements a ribbon leads to the article itself.—E. C. Patterson, in *Collier's Weekly*.

Let every man who would build up a good business in "own-make" toilet goods, look to his packages. Pretty, neat attractive containers and labels made in the highest style of the art are demanded in the toilet goods department more than in any other part of the store—and they are needed in every part.

No merchant need hope to grow rich by selling goods unless he sells to the same customer more than once, and the customer does not have to come back, and probably will not, unless he is pleased with what he received the first time—in goods, service and surrounding.

Boosting Hot Soda.

How to Make the Most Money Out Of It Directly and Indirectly—Daintiness a Prime Requisite, and a Reputation for All Goods Necessary—Window Streamers Help.

BY AN OLD HAND AT THE BUSINESS.

I have shown the dollars-and-cents importance, and the trade-holding influence of the hot drinks, and I have made it plain that the equipment-cost is small and the margin of profit large.

Now I shall apply the facts already stated to the test of daily practice, to see if some common-sense ways and means of getting the most for our money cannot be discovered

DAINTY SERVICE.

Perhaps it is not too much to say that the first requisite to success in the hot-soda business is dainty service. This is even more vital in the hot-soda business than in selling cold soda, because the hot drink in itself lacks the charm of form and color that are so potent in the business of serving sundaes and ice-cream sodas.

The dispenser should use only thin decorated china-ware—real china. The china tray with cup at one end and a little pile of wafers at the other is popular and has the advantage or justifying one in charging 10 cents for an ordinary bouillon that might look like only "5 cents worth" if served in a common cup and saucer.

Then, too, he should use dainty silverware and see to it that it is bright and clean, with none of the plating worn away until the base metal underneath shows. In this connection let me suggest that it is never wise to buy silverware that is plated on a brass base, but to insist on a white metal or brittania base. Some spoons will be stolen, of course, but the loss of business that will come from the use of a too cheap style of spoon will be greater than the money loss due to dishonest or "Smart Aleck" patrons.

A paper napkin and a glass of ice water should be served with each cup of hot beverage, and salt, pepper, paprika and celery salt should be within reach, on the counter or table.

Hot chocolate, cocoa, malted milk, coffee, and perhaps even tomato bouillon should be topped with whipped cream. Marshmallow cream whipped up with milk is delicious, especially with cocoa, and it costs less and is easier to keep than straight whipped cream.

CHOCOLATE DRAWING CARD.

Let the druggist once acquire the reputation of serving a rich, "flavory" cup of chocolate, and feature it in his advertising, and he will be delighted with the result. He should be able to make chocolate better than that served by any but the highest-priced restaurants, because he may make it a little at a time, instead of by the wholesale.

LUNCHEONETTE FEATURE.

As I have intimated before, the greatest possibilities of hot soda lie in the service with them of sandwiches and other light luncheon dishes or dainties.

I know druggists who are making twice as much money out of their hot soda and luncheonette departments as they are from their drug stores proper; and the sale of drugs and sundries is tremendously helped by the purchases made by the soda fountain and luncheonette crowd.

HOT DRINKS MUST BE HOT.

Lukewarm water is an emetic, because it nauseates. Lukewarm "hot soda" is almost equally disagreeable. Hot soda must be served *hot*, and in order that this may be done the dispenser must be provided with the right kind of urn, and the right kind of burner under it; and he must watch the thermometer.

All the supply houses sell one-, two-, and three-compartment urns, each with a "chocolate warmer" on top. My observation is that the compartment in the body of the urn may be kept at the boiling point, and the chocolate warmer at the top be still nothing more than a *lukewarmer*. Such a compartment should therefore not be used for chocolate but for milk, as milk should not be too hot.

Many dispensers cook the milk in with the chocolate, but my own preference is to keep the milk out of it until I am ready to mix the ingredients in the cup.

DON'T MONKEY WITH TOY URNS.

Because the beverages *must be hot*, my advice to all dispensers is not to waste any time with the very cheap urns and the 50-cent burners that usually go with them; but to invest from \$30 to \$50 for each duplex or triple urn, and to fit each urn with a good-sized gas burner.

It is better for a druggist not to try to serve hot soda at all than to serve it in such way that a customer will never come back.

BOOSTING THE BUSINESS

The margin of profit on the hot drink is so liberal that one can well afford to "plunge" a little in advertising. If the druggist has a large down-town store he can use the local newspapers at a profit, and in most cities cards in the street cars as well.

WINDOW STRIPS AND POSTERS.

Whether down town or in a residence district, the hot-soda dealer should make full use of his show windows. All the soda supply houses and the makers of various materials for the hot soda department are liberal with window strips, hangers, show cards, etc. If the supply they ship with the goods is not sufficient, they will send more if requested, as I have found them to be glad to co-operate with the dealer who is showing their goods. It helps the sale of beverages to keep the windows well decorated with their strips, supplemented with strips of the druggist's own making. Appropriate black crayon marks on long strips of roll wrapping paper make good advertising strips.

IDEAS FOR WINDOW ADVERTISEMENTS.

Let us suggest some phrases because these in turn will lead any ingenious advertiser to coin some of his own that will be still better:

Shivery? Come in for a Hot Bracer.

*Food and Drink and a Cheery Comfort—
a glass of Hot Malted Milk.*

*Our Hot Chocolate is Different from Most
Chocolate—and Better.*

*A man walked a mile to get a cup of our Hot
Tomato Bouillon and said it paid him.*

*Hot Beef Tea—Sounds "hospitably" but tastes
"homey" and gives you a "come-again" feeling.*

*We use Beef Cubes—you make your own Beef
Bouillon and season it to suit yourself.*

*A chill is the open door to a cold. Close the
door by stepping in for a cup of Hot Cocoa.*

CIRCULARS AND MENU CARDS.

Let the dealer get up a menu of say a dozen leaders, and then have a neat circular printed about his hot-soda department, luncheonettes, etc. In this he should tell how he prepares each of his specialties, what fine materials he uses, etc., not forgetting to feature his cold sodas and ice cream in the same circular. He should mail one of these to every housewife in the district which is his natural territory, and if he wants quick action, he should en-

close a ticket, or incorporate in one corner of his circular a coupon entitling the holder to a 10-cent drink free. By all means let him arrange this ticket or coupon so that the user must write her name and address on it before it is redeemed—that's an excellent way for him to acquire a mailing list of people who have actually sampled his goods. Each customer who is pleased with the beverage and the service will become a walking and talking advertisement for the store.

One peculiar fact about these free coupon offers is that the beneficiary almost always makes it a point to buy something else before she leaves the store, and in fact, usually before she presents the free ticket, probably out of a sense of pride and a dislike to acknowledge that she comes to the store for the sole purpose of getting something free. This being the case, the druggist can well afford to be liberal with his coupons, especially as each free drink he serves costs him only from $1\frac{1}{2}$ to $2\frac{1}{2}$ cents.

CAPITALIZING THE CROWD.

The druggist who manages things properly will reap indirect profits from the hot soda crowd larger even than the direct profits on the drinks themselves, as great as the latter is.

The experiment of placing the hot soda urns, chairs and tables in the extreme rear of the store has been tried with success. To make this pay the largest dividends, the dealer must, of course, have his sundries displayed catchily, and preferably priced in plain figures, department store fashion. The theory of the back-of-store location is to compel every patron to pass in review all merchandise, while on the way back for a drink. Of course if it is not made worth the customer's while to go so far back—if the beverage is not worth the trouble, and the added comfort and sense of freedom from hurry are not sufficient to make themselves felt—then this feature will not prove a success.

Speaking of department stores, why should not every druggist have a bargain counter in the middle of his store, filled with 5-cent, 10-cent and 15-cent bargains in soaps, corn plasters, tooth brushes, tooth powders and pastes, and a long list of other sundries such as the department stores are featuring.

While the druggist may feel that in a sense he is a professional man, he is also a merchant and must adopt modern-day merchandising methods or lose in the race. He can buy sundries just as cheap as the department stores, and he can afford to sell them on as low a profit-margin as they do, if he can sell enough of them. He can make his soda water—hot and cold—the magnet to attract the crowds; then when the crowds come, as come they will, he can tempt them with "bargains" attractively displayed. He may depend upon it, a customer who is once won will come again, and again, until she "gets the habit." I say "she" because it is the women whom he will win by this method, and they are the patrons he most wants to win, because they buy, or influence the sale of 75 per cent. of all the drugs and sundries sold in the United States or any other country.

LASTLY, AS THE PREACHER SAYS.

Before I close, let me repeat what I said in a previous article—one of the chief reasons for pushing hot sodas is to keep the cold soda department alive and active all through the winter. For that reason all that I have said about advertising and pushing hot drinks should be applied equally to your ice cold and ice cream sodas. The sale of each will stimulate the demand for both, and the trade in both will increase and multiply the business done in drugs and sundries.

Here are some of the fancy names for fountain confections found at Paterson, N. J.: "Nancy Brown," "Merry Widow," "Maiden's Dream," "Lone Star Sundae," "French Sundae," "Surprise Sundae," "Pine Cherry Sundae," "Maiden Blush Sundae," "Opera Sundae," and "National Delight."

"Are there any bacteria in this ice cream soda?" asked the summer girl. "You didn't mention them in the first place," replied the new attendant firmly. "If you're going to change your order you'll have to get another check."—A waif.

An unsatisfactory drink thrown into the sewer may cost the house 3 or 4 cents; a dissatisfied customer may cost that many dollars

Bracers for Chilly October Mornings.

Hot Gingerade.

Pour 1 ounce of ginger ale syrup into a glass; add a dash of soluble extract of ginger, and fill with boiling water.

Celery Tomato Bouillon.

This is prepared by adding a few dashes of celery extract to a cream of tomato bouillon.

Egg Cherry.

Into a mixing glass draw 2 ounces of cardinal cherry. Sweeten to taste with powdered sugar and add an egg. Shake thoroughly and strain into another glass. Fill with boiling water.

Tomato Clam Broth.

Tomato bouillon, 1 ounce; clam bouillon, 1 ounce. Draw into a hot soda mug and add a dash of cream. Season to taste and fill with hot water. Add a small piece of butter.

Manhattan Hot Punch.

Put 1 ounce of beef bouillon into a cup of hot water; season with salt, pepper and celery salt; top with whipped cream.

Hot Beef Tea.

Put $\frac{1}{2}$ a teaspoonful of beef extract into a cup; fill the cup with hot water; stir well, and add salt and pepper to suit.

Oyster Cocktail.

Six oysters; 1 ounce of clam juice; fill the mug with hot water and flavor with salt, to suit.

Hot Tomato Bouillon.

Take $\frac{1}{2}$ to 1 teaspoonful of beef extract, or about 1 ounce of good liquid beef extract, and $\frac{1}{2}$ ounce of tomato catsup, with enough hot water to fill an 8-ounce mug. Season to taste.

Tomato Cream Bouillon.

Take $\frac{1}{2}$ ounce of beef extract, $\frac{1}{4}$ ounce of tomato catsup and $\frac{1}{2}$ ounce of cream. Stir while filling with hot water and serve with spices.

Hot Pineapple Juice.

Mix about 3 parts of pineapple juice with 2 parts of hot water, and sweeten to taste. Drop a cube or two of pineapple in the mug.

Hot Orange Eggade.

Into a mug squeeze the juice from half an orange, and break an egg; add powdered sugar to taste and fill with hot water. Top with grated nutmeg.

Hot Ginger Eggade.

Into a mug draw 1 ounce of ginger syrup, and break an egg, add a few dashes of tincture of ginger and fill with hot water. A clove may be added.

Hot Ginger Cream Eggade.

Made as the foregoing with the addition of $\frac{1}{2}$ ounce of sweet cream.

Cream of Beef and Celery.

Into a large mug put 2 teaspoonfuls of liquid beef extract, and break an egg; add 1 ounce of sweet cream, and a few dashes of extract of celery. Use pepper, salt and celery salt to suit, and charge what it is worth.

As Paul Caldwell says, these new-fangled syrup pumps seem to have a fascination for the man who works them, compelling him to pump and pump and pump until his arm is too tired to proceed further. Then he serves a drink that (1) is sickening to the customer, (2) that costs the proprietor about twice what it should, and (3) that takes too much of the dispenser's time in the making.

Soda water may be made so good that people will buy it whether they need it or not. Soda sales that are confined to those who are obliged to buy have never made a fountain pay. The way to get money out of the soda business is to dispense such beverages that people are tempted to go out of their way to buy and drink them, even when they could do without and not suffer.

A soiled glass left on the soda counter cries out to the prospective customer: "The man in charge here is not neat and clean in his tastes and habits. If he allows sloppiness on top of his counter where all can see, just fancy what he must have underneath and in the back room where he makes his syrups."

Profitable Soda Business in a Poor Neighborhood.

How a Baltimore Druggist Capitalizes the Poverty of His Neighbors and Draws a Good Dividend Therefrom—Making Five-Cent Ice-Cream Soda and Sundaes Pay.

Druggists who are assailed by doubt in regard to the profitability of a soda fountain in a modest neighborhood and who have somehow gained the impression—probably from seeing elaborate and costly apparatus in many of the stores—that a large outlay for equipment and fixtures is necessary to make a fountain pay will experience a change of ideas if they happen to visit the pharmacy of Samuel Y. Harris, at Poppleton and Lombard streets, Baltimore. The neighborhood in which this store is situated is distinctly one inhabited by people of very limited means. The houses are inexpensive, and domestic economy receives a careful study in a great majority of the homes. The problem there is to make a dollar go as far as possible and to get the most for the money.

But notwithstanding these drawbacks Mr. Harris has solved the problem of making his fountain pay, and he has done this without any strong appeal to the love of the populace for show. His success is all the more interesting because of the fact that some pharmacists in the districts more remote from the business section have concluded that a soda fountain is not a profitable adjunct to a drug store, and have had such apparatus taken out. Mr. Harris' fountain is one of the rather old-fashioned variety, with marble base and fancifully carved golden buffet back. It takes up little room, being hardly larger than an ordinary buffet, and the other appurtenances are on the same modest scale. There is absolutely nothing about the place which might awe the most backward person and embarrass him with a display of magnificence. The general effect is one of plainness and simplicity which causes Mr. Harris' customers to feel that he does not consider himself above them and that he stands on their own level. This equipment not merely gains the confidence of the people of the neighborhood, but also has the advantage of being inexpensive. No large amount of money is tied up in the soda fountain and the need of earning a considerable sum to pay the interest on the investment is done away with.

Mr. Harris, furthermore, never allows himself to lose sight of the fact that the great majority of his patrons are poor, though eminently respectable and possessed of a commendable degree of independence. He knows they cannot afford to pay high prices for their soda fountain beverages; consequently he has adjusted his prices to the requirements of the neighborhood. His stand would not be one for 10-cent drinks, and he makes no attempt to get a dime for the thirst-quenchers he dispenses. Everything at the fountain is 5 cents, even ice cream soda and sundaes. But Mr. Harris has not fallen into the error of supposing that the common people "don't know any better" and that anything is good enough for them. In keeping his prices low he has avoided the expedient of trying to make profits by getting cheap materials. Mr. Harris' patrons will obtain as good a glass of soda water as can be had anywhere else. The only difference is in quantity. His sundaes are not quite as large as those served in stores that charge 10 or 15 cents, and the lump of ice cream in his glass is just a little smaller than is put in at some other stands. This is the only difference. In point of quality the customer there is just as well served as he would be in the finest establishments.

To be sure, Mr. Harris' callers do not get the trimmings, the fancy fixings and the large display to be noted in the higher-priced stores, and they do not look for them. They prefer simplicity for the reason that it accords with their mode of living and appears to them more homelike. Fancy drinks are also largely omitted there because they cannot be made satisfactorily for a small price, and the people of the locality do not call for them. Many of the customers are children, among whom ice cream soda is extremely popular.

Recreations of the very poor being few and their diversions restricted, soda water becomes to them something to be really enjoyed, and Mr. Harris' neighborhood is far more productive from the soda water standpoint

than others of greater pretensions. Even though the quantity of ice cream put into each glass is relatively small, there are days at the Harris store when more than 40 gallons of cream are served in this way, a record which few stores in Baltimore can equal. And all this trade has been built up by keeping in close touch with the people.

In a sense Mr. Harris is doing a great work as an educator. He sets an example of cleanliness and exacting care which is bound to be an example to callers. Twice a day the counter and the outside of the apparatus are carefully cleaned, and every morning the whole interior is cleansed. Glasses are washed with soda, and nothing sticky is allowed to remain on the counter after a customer has been served. There is no deviation from the rules made for keeping the apparatus in such a condition as to satisfy the most fastidious housewife. Mr. Harris himself gives this detail his supervision and he sees to it that thoroughgoing cleanliness becomes second nature with his clerks. The dispensers who have worked at the Harris store go away with the cleaning habit fixed in them.

The syrups are carefully prepared on the premises, and other fundamental detail is attended to much after the manner of other stands. All expense for advertising literature or fancy touches is cut off, for the neighborhood imposes limitations as to price, and the extras would serve no purpose other than to decrease the margin of profit.

Making Good Chocolate Syrup.

A much esteemed reader of the CIRCULAR who does not care for personal publicity in the matter, contributes to this department some remarks on the proper way to make and serve chocolate at the soda fountain. He writes: "I have sold soda in a small town for thirty years and in no single year of the thirty have I failed to increase the business in that line. Much has been printed on chocolate syrup and to this product I attribute a large part of my success in the soda business.

"The poor quality of chocolate soda found at many fountains—and good fountains, too—is astonishing, when we understand that a good chocolate syrup is easy to make and can be produced at a cost of about 55 cents per gallon. Good chocolate is a drink enjoyed by nearly every one when made and served right at the fountain. If it is featured it is a winner anywhere, I believe."

This friend then gives his formula and directions, which are as follows:

Chocolate Syrup.

Powdered cocoa.....	5 pounds.
Sugar	40 pounds.
Water	4 gallons.
Extract of vanilla.....	1 ounce.
Salt	1 ounce.

Bring the water to near the boiling point; thoroughly mix the cocoa with at least half of the sugar; pour the mixture and the balance of the sugar into the hot water and stir with a wooden spoon until all lumps are broken up; bring the syrup to a boil and keep it there for at least five minutes; add the salt and flavoring and strain at once through cheese cloth into stone jugs.

He goes on to say:

"This formula will make about eight gallons at a cost of 55 cents per gallon. If served with cream, as it should be, no gelatin, or other foam producer is necessary, as good cream containing not over 18 per cent. of butter fat, will give all the body and foam necessary to produce a perfect glass of chocolate soda.

"This syrup will keep, if necessary, a week or ten days, even in mid-summer, in any room of ordinary temperature.

"It may seem absurd to comment to any extent on so simple a product as coffee soda, but from the many remarks I have heard at my fountain, and from the product I have drank at many expensive fountains, I am led to think that this delicious beverage does not receive the attention it deserves."

Now let some other believer in a little-better-than-the-average soda come forward with suggestions as to how to serve it so.

The soda attendant who keeps a customer waiting while he polishes spoons is tottering at the upper end of a greased chute.

Cold Soda for the Cool Months.

Experts have decided that cold soda water is an all-the-year-round beverage, and those who patronize some of the more popular city fountains in winter may see for themselves that the experts are right. Perhaps suggestions for some of the reasons for this change of conditions since the earlier days of soda water may be found in the following:

Glass Sundae.

Into a large straight glass draw 1 ounce of pineapple syrup, and add a spoonful of ice cream; beat them together, fill the glass two-thirds full of carbonated water, using the coarse stream. Add a good-sized portion of ice cream on top, after the contents of the glass have been well mixed; top with crushed strawberries, and decorate with pineapple. Some dealers get 15 cents for this.

Orange Combination Sundae.

I.

In opposite sides of a sundae glass place scoops of vanilla and chocolate cream. Cover the whole with orange fruit and syrup, whipped cream and two cherries.

II

Into a sundae glass place a scoop of vanilla cream, with a small wafer or other form of pastry placed in a hollow in the center. Fill the hollow with fresh orange fruit syrup, cover with whipped cream and decorate with slices of orange.

Come Again Sundae.

Put a portion of vanilla ice cream in a sundae cup and pour over it some undiluted crushed pineapple and crushed raspberry and sprinkle with chopped walnut meats.

MalTED Milk Egg Chocolate.

Chocolate syrup, $1\frac{1}{2}$ ounces; sweet cream, 1 ounce; malted milk, 2 spoonfuls; one egg, cracked ice, enough. A small amount of ice cream may be added if desired. Shake, strain, fill the glass with water from the coarse stream; top with nutmeg.

Schoolboy's Favorite.

Into a 12-ounce glass draw $1\frac{1}{2}$ ounces of pineapple syrup, 1 ounce of grape juice and the juice of 1 lime. Add a liberal supply of fine ice and fill the glass with carbonated water. Decorate to suit the fancy.

Aviation Soda.

Into a 12-ounce glass draw 1 ounce of pineapple syrup; add 2 spoonfuls of crushed pineapple fruit, 2 spoonfuls of whipped cream, and 3 ounces of milk. Fill the glass with carbonated water from the fine stream. Top with a spoonful of vanilla ice cream and serve with a spoon.

Grape Parfait.

One ladleful of ice cream, 1 egg, 1 ounce of grape syrup, and enough chipped ice. Mix thoroughly; strain into a 12-ounce glass and fill with carbonated water from the fine stream. Sprinkle with powdered nutmeg or cinnamon.

All's Well.

Orange syrup, $\frac{1}{2}$ ounce; ginger syrup, $\frac{1}{2}$ ounce; strawberry syrup, $\frac{1}{2}$ ounce; grape syrup, $\frac{1}{2}$ ounce; acid phosphate solution, 1 dram; mint, 1 sprig; cracked ice, enough. Carbonated to fill a 12-ounce glass.

Egg Strawberry.

Into a glass drop 1 egg; add 2 ounces of strawberry syrup, 2 ounces of plain cream, and enough ice. Shake well and fill with carbonated water, using the fine stream.

Ellis, Druggist Ice Cream Manufacturer.

Frank I. Ellis, Fifty-second avenue and Madison street, [Chicago], has been manufacturing his own ice cream for the past eighteen years. He has one of the most complete plants in the city. Mr. Ellis is in a sparsely settled part of the city, but does a large business in ice cream. People come from a great distance to get his superior products.

In relating his experience to the writer, Mr. Ellis stated that the public wanted good wholesome ice cream made from cream, sugar and flavoring and were willing to pay for same. He retails his cream at 40 cents per quart. On Sundays and holidays he has special flavored and fruit creams for which he gets 50 cents per quart.

This demonstrates that any druggist can make money out of the ice cream business.—C. R. D. A. Notes.

Serving Hot Drinks.

The increasing popularity of hot drinks at the soda fountain, says J. Hungerford Smith, has not only opened up a new field of profit for the dispenser, but has also enabled many dealers to make their soda-water business a year round proposition, the increased sale of cold soda alone proving an attractive consideration.

Instead of your soda fountain lying idle all winter, an item of expense, make it a profit paying investment and a source of constant and satisfactory income.

An engine which is in constant use can be operated with greater economy than one which is in use only part of the time, and the same is true of the soda fountain. In the larger cities many fountains make a profitable feature of the hot soda lunch, which is becoming more and more popular with professional people, business men, students and others.

Hot egg chocolate, and other egg drinks, and clam, chicken and tomato bouillons are favorite specialties for this trade. These should be served with saltines, graham or soda biscuits, or wafers.

Money in Hot Soda.

Someone has figured out the profit on \$25 worth of hot soda as equivalent to that on \$100 worth of the cold beverages. The initial cost of a hot-soda outfit is less than one-tenth—say one-twenty-fifth—of that of a cold-soda fountain and accessories.

The presence of a hot-soda urn frequently attracts people to the cold-soda fountain in winter when they would not come in but for it. For instance, two people are passing a drug store. One says: "Come in and have a glass of ice-cream soda." The other replies: "Oh, it's too cold for ice-cream soda." "Well, take something hot, then," and they both go in, one indulging in the cold and one in the hot drink.

This is no fancy picture, but something that happens every day in the winter.

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Net Advertising Rates.

	3 months.	6 months.	12 months.
One Page.....	\$248	\$438	\$750
One-Half Page.....	142	238	438
One-Third Page.....	115	166	300
One-Quarter Page.....	86	125	225
One-Sixth Page.....	60	100	166
One-Eighth Page.....	45	70	125
One-Twelfth Page.....	34	56	100
One-Sixteenth Page.....	25	43	70
One-Twenty-fourth Page...	19	33	56
Card $2\frac{1}{2} \times \frac{1}{2}$ inches.....	11	19	33

Special prices are charged for preferred positions.

Changes for standing advertisements should reach us before the TWELFTH of the month, as we commence printing on that date. New advertisements sent in before the 23rd of any month can be inserted in the following issue.

Classified Opportunities.

Advertisements are inserted under this heading without display except as to a portion of the first line; the charge is at the rate of 25 cents for six words, each figure, abbreviation or initial being considered one word. Terms: invariably cash with order.

NO ORDER GIVEN TO ANY REPRESENTATIVE OF THIS PAPER BECOMES BINDING UNTIL APPROVED BY ITS MANAGER.

QUESTIONABLE OR UNDESIRABLE ADVERTISEMENTS WILL NOT BE ACCEPTED.

THE DRUGGISTS CIRCULAR

A Practical Journal of Pharmacy and General Business Organ for Druggists

VOL. LV. NUMBER II.

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WHOLE NUMBER 659.

Working Tools of the Craft.

How much pleasanter it would be all around if we could discuss only the joys and beauties of the drug business, and could forget the long hours, the hard work, the dead beats, the excessive rents, the high wages, the extortionate express charges, the dispensing physicians, the tales of woe and hard luck on the part of the sick and indigent, the adulterated goods, the fakes, the breakage, the indifference and wastefulness of clerks, the unreasonableness of customers, the bore who tells over and over again the funny story about the plasters with the holes in them, and the hundred—yes, thousand—and one other things which go to prevent the druggist's life from being a bed of roses. We say, what a pleasure it would be to conduct a drug business free from these things and reminders of these things, yet abounding in beautiful fixtures, prettily arranged bottles, bright lights, sweet odors, charming customers, interesting and profitable prescriptions, a steady demand for goods in stock, attentive and contented clerks, delightful days "off," and an even run of trade throughout all the hours of the day.

It seems a shame to wake a man up out of a sleep in which he can dream of these things, and rude to dispel the smile which lingers at thoughts of them by pointing out his faults and shortcomings, but we are not in fairyland where the waving of a wand will bring about desired changes, and the drug business is one in which its devotees still have to work and worry, so some of the unpleasant things have to be endured, and frequently are discussed. It is with a desire to lessen their work and relieve them of much of their worry that we direct the thought of certain druggists to a matter which we fear does not receive as much of their attention as it might with profit to the druggists themselves—the matter of proper equipment.

We were reminded of this subject by the paper read by J. O. Burge at the recent meeting of the Tennessee Pharmaceutical Association, which paper (see the CIRCULAR for September, page 466) reminded us of a previous one by Dr. H. P. Hynson, mention of which was made in connection with Mr. Burge's article, and also calls to mind one on books, by H. D. Morgan, commented upon editorially in the issue for last March, page 119, and another on journals by M. I. Wilbert, printed in the CIRCULAR for December, 1907, page 783. We fervently wish that every retail druggist in America would get all these articles to-

gether and read, re-read, mark, learn and inwardly digest them, to the end that such of them as need to might come to a realization of the way in which they are handicapping themselves, losing time, trade and money, provoking profanity, setting a bad example to their clerks and in various other ways acting in a short-sighted and unreasonable manner by not providing themselves with a fairly full assortment of the working tools of their craft, including books and journals. Would that we could sing it out so loud that all could hear, and so clear that none could misunderstand, and so feelingly that everyone who heard and understood would heed, that the druggist who tries to do business with one old pair of prescription balances, a drawer half stocked with more-or-less inaccurate weights, a few broken-footed and chipped-lipped graduates, and the rest of his woefully inadequate supply of working utensils about on a par with these, is doing himself as great an injustice as would be the farmer who tried to work a two-hundred-acre farm with a brindle bull yearling, or a ditcher who undertook to do piece work with no implement other than a kitchen spoon.

Glassware costs but little and a few extra graduates would pay for themselves in time saved when the one graduate needed is smeared with copaiba and the other one (which could possibly be made to do) is in use by the clerk downstairs. An old balance, with weights that have worn too light or have become gummed and too heavy, may cost more in the shape of a fine for an erroneously prepared mixture than enough to pay for two new pairs of scales and sets of weights—and, oh, the pure joy of having good things and plenty of them when they are wanted; and the renewed pride they give one in his work; and the value they are as an advertisement, both to physicians and the public. Test tubes, percolators, beakers, mortars, filter stands, retorts, stills and the like not only are the handiest things a chemist and druggist can have around his shop, but if a suitable combination of them in action is set in his display window now and then, they will do much toward paying for themselves in the awe which they will inspire in the passing multitude.

The dispensing pharmacist who tries to economize by using his fifteen-year-old dispensatory and getting his National Formulary recipes out of the back of a book which does not give the formulas of the latest edition and gives such as it does contain in a lame and unsatisfactory manner, is saving at the

spigot and losing at the bung. And while we are on the subject of reading matter it might as well be said that so important to every merchant and professional man are the journals devoted to his particular vocation that the druggist who is too busy to read them would probably be busy enough and save money enough to justify him in hiring another clerk if he only would glean some of the trade-bringing and money-making and time-saving ideas from a few of the leading publications edited in his interest—and with an extra clerk, he might find more time to devote to his journals and a few extra hours a week in which to become personally acquainted with the members of his family.

The druggist who does not subscribe for a good journal, or does not look over it carefully when it comes, or does not seize upon some of the suggestions which it contains and turn them to his profit, belongs in a century that has passed never to return. And the man who reads his journals and throws them aside, when it is so easy to string them together and keep them and their indexes in place for future reference, does not realize more than half their value.

Men and brethren, look around you. Do you feel that what we have herein said, or any of it, applies to you. If you do, take it as a personal dig; "get mad" if you like—as a man who is aroused to anger generally does something—yes, get mad, and just to show that you are not the kind of "has-been-ers" or "never-was-ers," "or can't-be-ers" that would be guilty of such short-sighted penny-wisdom and pound-foolishness as we have in mind, but can not appropriately describe, pry yourselves loose from a ten dollar bill this month, and about two dollars a month more for the next twelve, and see if you can not see a compensatory difference in your daily receipts and night's rest.

Necessity for State Regulation of Food and Drugs Traffic.

While the United States government is in many respects one of the strongest in existence, like all things human it has its limitations. Some of these limitations of a constitutional nature are not quite so well defined now as our grandfathers thought they were, but others have never been questioned. While it frequently has been stated that the president of the United States has greater authority in his country than the king of Great Britain has in his, it is nevertheless true that the president has no more authority in matters concerning the internal affairs of any State than has a private citizen. And by the same token, congress has no more authority to enact laws affecting the internal government of a State than has the law-making body of some other State or of some foreign country. In other words, each State is theoretically a sovereignty in itself with respect to all matters not specifically yielded by that State to the general government as set down in the constitution of the United States. Among their rights which the

States have yielded to congress are, the right to provide for the defense of the United States, the right to coin money, the right to regulate interstate and foreign commerce, the right to establish post-offices and post roads, and the right to issue patents.

The States have never granted to congress the right to regulate the purity of their food and drug supplies—and just here a good deal of confusion seems to exist in the minds of many of our fellow citizens, including druggists. A natural question is: How can congress enact, and one of its co-ordinate branches of the government execute, and another co-ordinate branch pass judgment upon a food and drugs act, if the general government has no authority in such matters? Those who ask such a question may find its answer in the text of the food and drugs act itself. The full title of the statute is, "An act for preventing the manufacture, sale or transportation of adulterated or misbranded or poisonous or deleterious foods, drugs, medicines and liquors, and for regulating traffic therein, and for other purposes." That portion of the law which refers to the manufacture or sale of food and drugs does not apply to the several States at all, but prohibits such manufacture or sale in any Territory or the District of Columbia. Congress can not, and does not attempt to, prohibit the manufacture or sale of adulterated, misbranded, poisonous or deleterious food and drugs in the several States, but it does prohibit, and under the provision of the constitution granting it the right to regulate traffic between the States has a legal right to prohibit the shipping of such goods from one State to another. In a case in which a manufacturer in one State has been arrested by United States government officers on account of having delivered to a dealer in another State an adulterated drug, the offense of the manufacturer in the eyes of the law is not the adulteration of which he has been guilty, but the shipping of the adulterated goods across the State border. Unless it can be shown that the goods in question crossed the line dividing the two States, no punishment can be meted out by the United States to the adulterator. The manufacturer is innocent under the law up to the moment the carrier bearing the adulterated drug crosses the State line. Of course, when the District of Columbia, a Territory, or an importation from or an exportation to a foreign country is involved, the case assumes a different aspect.

We have gone into this matter somewhat in detail in order to make as emphatic as possible the point which we wish to bring out, namely, the necessity not only for State food and drugs laws, but the necessity for their enforcement, if we are to stamp out the manufacture and sale of adulterated, misbranded, poisonous or deleterious foods, drugs and beverages in this country. United States officials acting under the food and drugs law may prevent the importation or interstate shipping of ground belladonna root containing fifty per cent. of ground olive pits, but they can not prevent ground belladonna root and ground olive pits, in separate packages, from going to the same dealer, nor can they prevent the dealer from mixing

them and selling them as pure belladonna root anywhere within the State in which the mixing is done..

Most of, if not all, the States have laws prohibiting adulteration of food and drugs, but in only a few of them, seemingly, are these laws so executed as to cause any great amount of anxiety on the part of those who profit by the adulteration. In some States excellent work to protect the stomachs of citizens is being done by food and dairy commissions, boards of health, boards of pharmacy and other agencies of a similar nature. It is to these agencies that we must look for a correction of many of the abuses found in places in which food, drugs, confectionery and beverages are manufactured, sold or served. The United States government, with all its power, can not go into the shipping room of the local jobber, or behind the soda counter or into the manufacturing department of the confectioner, or inspect the restaurant kitchen; but local boards of health can do these things, as can also State departments entrusted with the regulation of such matters, and these should be urged to do their full duty, to the end that true pharmacy and all honest dealers may come into their own.

Our Price List Supplement.

"It is the intention of the publisher to make THE DRUGGISTS CIRCULAR price list the most complete book of the class ever issued." These are the first words in the introductory to the first issue of the Red Book, published in March, 1897. Since that time the list has been revised two or three times each year, each time with a view to making it of greater service to our readers. Not only have the original features of the supplement been amplified, but new ones have been added from time to time. Thus, when the stamp tax was imposed on account of the little good-natured fracas we had with Spain, schedules of the things taxed were printed as part of the Red Book during several issues in 1898 and the next two years until the tax law was repealed. The food and drugs act was passed in 1906, and its text has appeared in many issues of our price list. In various numbers various other matter to which druggists may at any time wish to refer quickly has appeared. When the book was still in its infancy there was incorporated in it the old Rebate List prepared jointly by the National Wholesale Druggists' Association and the Proprietary Association of America. To make this feature more valuable we devised a system of numbering the names of the proprietors and attaching corresponding numbers to the names of their preparations listed in the body of the book. This system of reference proved such a great convenience to users of the list that we have now so extended it as to make it apply to all known manufacturers of proprietary medicines. In order to do this without making the system too cumbrous, we have combined with the numerical reference an alphabetical one, the combination making easier a quick reference from the name of the article in the list to the name and address of its manufacturer.

As usual, the changes in prices in this edition of our price list have been numerous, and many new

articles are quoted. Indeed, it might be said that the list has practically been re-written, so great have been the changes made in it. No list of this kind can be complete and perfect until such time as new drugs cease to appear and prices on old ones do not vary with time and locality. By frequent revisions, however, our list is kept reasonably up to date, and between its semi-annual revisions we chronicle in our regular issues any change in prices which may be of especial interest to our readers.

The current number of the Red Book, published as Part II of this issue of the CIRCULAR, represents an amount of labor and care that no one who has not been through the experience of preparing such a list can comprehend. But we keep constantly in mind the principle, above quoted, enunciated when we first issued this supplement to the CIRCULAR, and intend to let no trouble or expense prevent us from giving our readers what two or three generations of them have been looking to us to provide—the best of everything in our line.

That Hackneyed Old Subject—Advertising.

Advertising has been harped upon so insistently by those who know something about it and those who have caught up the cry parrot-like, by those who are actuated by self-interest and those who simply want to fill space, by those who have tried advertising and know its value and those who have put their money into ill-advised advertising campaigns and lost it, that it might seem that there would be nothing more to say on the subject and nobody left who has not reached his conclusion in the matter.

But advertising is a live force, and new things are discovered about it every day. It is like electricity in that it is put to uses now which had never been thought of in connection with it a dozen years ago. Business writers can no more exhaust the subject of advertising and stop than poets can sing all there is to be sung about women's beauty and charm, and hang their harps on the willows as being of no further use in this connection.

Advertising has been referred to as a subtle force: it is all that, and more. No one can tell when an advertisement is launched where its ultimate stopping place will be and how many ports it will enter on its voyage.

An advertisement is like a wireless telegram, in that it is directed to a certain station but may be "picked up" and answered by any station within reach of the electric waves—and the waves extend in every direction.

In spite of all that has been said about advertising, especially druggists' advertising, there are yet druggists who pay for newspaper space, fill it with stereotyped phrases which were dead when born and have been disintegrating ever since, and fondly lay the unction to their souls that they are exponents of the art of gaining desirable business publicity through printers' ink. There are still so-called business men who have been goaded into the belief that they must advertise in the papers, who set forth the fact that

they offer for sale some seasonable specialty adapted to the days of frost and snow, and neglect to change the "copy" until the months have rounded out their cycle. Doubtless there are among these men a goodly proportion of those who hold that advertising does not pay. Rather should they say that some kinds of advertising does not pay.

Stiff, formal, high-flown language is out of place in the advertising space of the retail druggist. The stiff and formal kind may do for notices of esoteric books, and the high-flown is adapted to use on circus posters. Smart quips may please the man who originates them and flatter his vanity when they appear in print, but unless they are something more than just that, they are poor advertising. Many people resent undue familiarity manifested by such salutations as "Hi, there, old top, come in and buy a tooth brush and sweeten your breath," and advertising of a similar flavor does not induce them to patronize the store which puts it forth. There is just as much opportunity to fall into error in preparing advertising copy by trying to be smart as there is by being dull and commonplace, and a chance of giving offense to more people.

The best advertising is that which embodies in short, clean-cut sentences the sincere expressions of a man who is familiar with the merits of the goods offered; and the goods offered should be at least reasonably seasonable—not men's straw hats in December nor Christmas cards on the Fourth of July. The man who believes in himself and in his wares, who knows his clientele, who is sincere and direct in his statements and has an ability to put his thoughts into readable English, and will give the subject the care and attention to which its importance entitles it, needs no "expert" to tell him how to prepare his advertising copy: his own ideas and language are more convincing than any he can buy of a man at a distance, although many valuable suggestions may be obtained from those who have made a special study of the science and art of gaining publicity.

To test the power of advertising, let any druggist look around his store and select some line of goods that is not moving as fast as it should. Then let him turn over in his mind what he would say to a customer to whom he wished to sell some of this line. Let him set down on paper all the strongest arguments in favor of the goods, arrange these in logical, systematic order, put them in short expressive sentences, take the copy to his daily or weekly newspaper office, get one of the men there to go over it with him and make suggestions for its improvement, act on such of these suggestions as appeal to him as being valuable, and have the advertisement set in attractive, distinctive and not overcrowded style and inserted in a conspicuous portion of the paper. At the same time let him make a window display of the goods, arrange the stock in a prominent place in the store, show some neat hangers calling attention to them, and instruct the clerks to offer an unobtrusive word about the goods to casual droppers-in; at the end of a couple of days or so, in the case of a daily paper, or in each issue of a weekly or semi-weekly,

let him change the wording of his advertisement. Then, in the course of a fortnight, if he does not find that the goods move faster than they did, it will have to be admitted that good advertising of the ordinary kind does not pay him. Of course, there are still other ways in which the newspaper advertising may be made more effective. For instance, typewritten slips calling attention to the goods may be enclosed in packages leaving the store; circulars may be mailed to a selected list of prospective purchasers; dodgers may be handed out to those who pass by. Methods which are applicable in some cases might be entirely out of place in others. When the experimenter has hit upon the right combination, he should not stop, but rather press forward more persistently than ever, laying out for a whole season in advance his "system" of publicity promotion.

Advertising is cumulative in its effect. An advertising campaign for nursing bottles this year makes easier and more efficacious a similar campaign next year in the interest of perfumes or shaving brushes or any other line entirely foreign to the first one.

That the right kind of advertising pays is a proposition so evident that argument in support of it is unnecessary and uncalled for. If any proof of its truth were needed, one need but point to the fortunes which have been made out of businesses which without advertising would never have amounted to a row of pins.

WHAT'S THE USE OF BEING SICK, ladies and gents? Walk right up here and get your medicines for all ills and at prices so low that none need suffer. Here's your Blaud's pills, one hundred in a bottle, for only six cents, your dollar bottle of dandy hair renovator for fifty-five cents, your pound bottle of "peroxide" for fourteen cents, your Pidia Linkham for all woman's ills for sixty-three cents, your Puffy's walt, guaranteed to make you live a hundred years, for sixty-nine cents, four ounces of essence of pepsin, a sure cure for all digestive troubles, for fifteen cents, Catcher's pitchoveryou, the kind that has always made the baby cry, for nineteen cents, and sulphur, salts, syrups of hypophosphites and elixirs of strychnine at prices never before heard of. Come along, don't be afraid, the matchless dry-goods and house-furnishing house of Seenher-Giggle is behind every sale, and if you persist in suffering the ills of the flesh when such an unrivalled array of sure cures and infallible remedies is at your service, you have only yourself to blame. Come along and buy 'em anyhow, while they are cheap, for if you are not sick now you never can tell what may happen before to-morrow, and it is well to be prepared with mepto-pangan, repuna, and pine syrup for any emergency. All you have to do is name your trouble, select a remedy to fit, pay your check at the desk, and get your trading stamps. (Is it any wonder that drugless therapy is gaining recruits when drugs are advertised like remnants of dry goods, to create a bargain rush—drugs to be poured into the human body, the most delicate and wonderful piece of mechanism in existence, and one about whose intricate workings but little is known?)

BOUND VOLUMES OF THE CIRCULAR are to be found in many drug stores throughout the length and

breadth of the land. Occasionally we receive a letter from an old subscriber to the effect that he has complete files of the CIRCULAR and would feel lost without them. Not a month passes that we do not get an urgent request for a formula or something of the kind, when the inquirer could have saved himself the trouble and expense of writing, and the time he had to wait, and the loss growing out of inability to supply the customer with what he wanted, or the bad impression made on the physician by evidence of unpreparedness, simply by having at hand the copy of the CIRCULAR containing the information. We have the copies on hand, held together by the binders which we supply, and the annual index to each volume bound in with it. By referring to the annual indexes extending back over a period of three or four years, we can find answers to a large percentage of the queries we receive. We believe that most of our readers keep their copies for future reference, but evidently there are still some failing to do this who could begin it now with profit. It is not even necessary to buy the binders, although they are well worth the price we ask, as with an awl, a large needle, a piece of twine and a sheet of heavy manila paper any boy can bind twelve copies of the CIRCULAR in such a way that they will not become lost, torn, soiled or disarranged so easily as if left loose on the shelves. We do not mind supplying the information, but we dislike to see our readers inconvenienced as noted when the way not to be is so easy. Suppose we did not keep our reference files!

IN COLORADO there are fifty members of the American Pharmaceutical Association, that is, using the Proceedings for 1910 as a guide and counting Charles M. Ford as only one man. Maybe there have been some accessions to the membership from the Centennial State during the past year, and maybe Mr. Ford—but never mind that for the present. In the five States and one Territory bordering Colorado, there are—still basing our figures on the latest available statistics—one hundred and twenty-one members of the association, distributed as follows: Nebraska, thirty-six; Kansas, thirty-one; Utah, twenty-four; Oklahoma, twenty-two; New Mexico, five; and Wyoming, three. By adding the three members in Arizona, which touches corners with Colorado, we find that in this entire group of States there are one hundred and seventy-four members. Considering the relatively small population of this group of States and their comparative remoteness from the older portions of the country and the center of population, this is not a bad showing. South Carolina, one of the original thirteen States, with a greater population than Colorado, Utah and Wyoming combined, has only four members of the association, to the seventy-seven of the other States named. After the meeting to be held at Denver next year, doubtless the Rocky Mountain States will make even a better showing than they did when the 1910 statistics were prepared.

ALL DRUG CLERKS ARE NOT AS BAD as the results of their efforts seem to indicate. Many a young man has the best intentions and would do as well as he means if he only had a little of the right kind of instruction. A clerk may have learned a method of filling a prescription, or of making a stock preparation, or of arranging goods, or of waiting on customers in one store, which is not at all the way the proprietor of the next store in which he works would

have him perform a similar task. Is it the fault of the clerk or of the proprietor when the former acts contrary to the latter's wishes, when the proprietor has not informed him what those wishes are and shown him how they may be complied with? Habit is strong in most people, and a clerk who has been in the habit of doing a certain kind of work in a certain way for a year or two, will doubtless lapse back into that way of doing it in more than one unguarded moment before he has become accustomed to a new way. Just as it is not the fault of children when they behave ill in public, but a reflection on their parents, so in many cases is the clerk who does a thing wrong less to blame for his shortcoming than is the more experienced man who with diligence and patience should have shown him the right way. When a clerk can not or will not learn, or when he does wrong intentionally, we believe his employer will know how to proceed without any suggestion from us.

SIXTEEN SETS OF LABELS is what one manufacturer claims he has to have on hand in order to label his goods so that they will comply with the laws of the various States into which he ships them. We doubt this. We believe that it might have been the truth if he had stated that in order not to tell something in one State which the laws of another require him to state on his labels, he used different labels for these States. If he used the same label in the less exacting State that he uses in the more exacting one, we believe the officers of the former would not molest him. If he prefers to state certain facts in only those States which require him to, and keep his customers in other States in ignorance of them, then he has a legal right to use different labels for the goods going into different States, but we do not believe the laws of the various States require him to do this. All the food and drugs acts require a certain amount of truthfulness in the labels, some more and some less. A good way to keep from having to use so many different kinds of labels is to have one label which tells all the truth that all the States require. We believe that those who insist upon using sixteen different kinds need blame only their desire to hide from the users of their goods in one State something which by law they are required to reveal to those in others.

WHEN THE FOOD AND DRUGS ACT was passed, a paragrapher on the staff of a New York evening newspaper wrote: "The idea that the trust, rebate and pure food legislation as passed amounts to anything will be found to be largely a huge joke—as big a joke as the interstate commerce commission or the civil service law—mere bugaboos to impress suckers and scare easy marks; sound and fury, signifying nothing." Of which prediction so much as refers to food legislation has been knocked into a cocked hat by one man—the man whom so many of the food and drug adulterators and misbranders have been trying (ineffectually, be it said with praise and thanksgiving) to get out of the bureau of chemistry of the federal department of agriculture.

There will never be an approximation to a settlement of the differences between doctor and druggist, and correction of abuses, until pharmacy is restored to its proper place as an integral department of medicine—until the pharmacist works hand and hand with the physician.—*American Journal of Clinical Medicine*.

Proposed Permanent National Conference on Drug Legislation.

When, as chairman of the legislative committee of the American Pharmaceutical Association, Dr. H. P. Hynson, of Baltimore, went before the ways and means committee of the house of representatives at Washington at the last regular session of congress to present an argument in favor of the Foster anti-narcotic bill, he met, bent on the same errand, representatives of the retailers, the wholesalers, the manufacturers and the men engaged in what might be termed the scientific aspects of pharmacy, and the views expressed at the congressional hearings by these several representatives were almost as varied as the interests they represented. Of individual opinions there were many and they showed a great divergence of aim and import, with the result that the ways and means committee was not strongly impressed by the force of those druggists behind the bill. This scattering of fire by men who should work together to gain a common end, Dr. Hynson regards as one of the most serious obstacles to obtaining proper pharmacy legislation, either from congress or from any of the State legislatures. As long as it continues, he believes, it will be difficult, if not impossible, to imbue lawmakers with the conviction that the demands of the druggists of the country are entitled to serious consideration.

The subject, according to Dr. Hynson, far exceeds in importance the personal preferences of individuals or even the preferences of separate divisions of the drug trade. He holds that there is bound to be legislation regulating the drug trade, restricting the sale of articles and fixing standards of purity or strength, and that if the druggists cannot get together and themselves aid in determining these regulations and fixing these standards, the general public will do it for them as a matter of self-protection. In this situation, Dr. Hynson points out, the regulating and restricting may be done in a way not at all to the liking, or consistent with reasonable regard for the rights, of the pharmacists of the country. Dr. Hynson, consequently, argues that it behooves all the divisions of the drug trade to take a broad view of the subject, a view far beyond the mere individual concerns, and to agree upon legislative programs which shall have the entire profession and the business interests of pharmacy behind them.

To this end he suggests that all the druggists' organizations name delegates to a national conference at which the legislative proposals offered can be thoughtfully discussed and measures formulated which shall be certain to get united support. Of course, he says, all purely personal considerations must give way to the great common object sought. He emphatically declares that it is not what the retailers may want, what the wholesalers may desire, or what the manufacturing chemists or the makers of proprietaries may prefer, but what is for the good of pharmacy as a whole that must receive endorsement. And if the druggists go before congress or a State legislature with a program based on this principle, they will receive respectful attention and come very near getting what they want.

At present the manufacturers have their association, the retailers their national organization, the manufacturers of proprietaries their big central body, each aggregation working for objects designed to

benefit its membership irrespective of other branches of the business. Clearly, in the opinion of Dr. Hynson, neither of these organizations is in a position to undertake the work in question. It follows, therefore, he says, that the American Pharmaceutical Association, embracing in its membership all the divisions mentioned, and made up of all shades of opinion, is best qualified to serve as the society under whose auspices the mapping out of a program of the character indicated is to be done. Dr. Hynson's experience as chairman of the American Pharmaceutical Association's committee on national legislation has led him to the belief that the legislative problem can be attacked successfully only in some such way as here suggested, and he holds, furthermore, that druggists will be standing in their own light if they neglect to adopt some means of crystallizing sentiment in their own ranks and getting close together on the matters in behalf of which they would claim the attention of congress. He maintains there is positive danger in failure to take such a course, for the public will proceed, sooner or later, to take the question of legislation on drugs into their own hands, with results that may do great injury to pharmacy as a business and as a profession as well.

At the meeting of the American Pharmaceutical Association held at Boston in August Dr. Hynson gave expression to some of his ideas on this subject, as is reported in the CIRCULAR for September, page 514. Other members of the association thought it best to let the conference, when it was called, be a free agent to organize itself and work as its members saw fit, and not under direction from the American Pharmaceutical Association. The matter was referred to the association's council.

Just here it is appropriate to note that in this State local associations of druggists in Brooklyn, in Manhattan, in Buffalo, in Syracuse, and in other portions of the State formerly sent representatives to Albany to ask for legislation and frequently the efforts of a delegation from an association nullified the efforts of a delegation from some other association, although, perhaps, what would have been good for one would have been good for all. Once in disgust the chairman of a hearing dismissed the clamoring druggists, bidding them go out and agree upon what they wanted, and when they had done this to come back and let the committee know.

It will be recalled by many that at the invitation of the legislative committee of the American Pharmaceutical Association there was held at Chicago several years ago (see the CIRCULAR for February, 1906, page 68) a conference of representatives of the American Pharmaceutical Association, the National Association of Retail Druggists, the National Wholesale Druggists' Association, and the Proprietary Association of America for the purpose of preparing a model anti-narcotic bill. This is a precedent for the organization of just such a conference as Dr. Hynson proposes.

The Blackwell (Okla.) *News* for August 24th, 1911, contained an advertisement, a portion of which consisted of a testimonial from Mrs. Charles Butcher, of that city, to the virtues of Doan's kidney pills. As a matter of fact this very Mrs. Butcher had been dead nearly two months before the advertisement appeared; and she died of kidney disease!

Pushing Home-Made Specialties.

By J. C. DILLS, DRUG CLERK.

In our establishment there is no need, desire, tendency or temptation to substitute our own-made goods for the advertised specialties of the manufacturing pharmacists and physicians' supply houses. We knock the proprietary and pharmaceutical bluff out of the box by having a talk with the various physicians in our vicinity and showing them that if they have confidence enough in us to allow us to compound many of the mixtures that they daily prescribe, they also ought to have enough to allow us to make dozens of the preparations that are as easily put up as any common prescription. All of them from whom we get any worth-while amount of business are now boosters for our pharmaceuticals. We have about thirty preparations that stand between our physicians and any desire they might have to prescribe those of wholesale manufacturers. They are not made up to imitate the color or taste of any other preparation and are prescribed under names of our own. The results have been satisfactory to us and to the physicians.

We have "sampled" and "detailed" the physicians, just as do our competitors, and have several of our own original medicines going well. We guarantee that our own-make articles contain exactly what the label claims and nothing else. Our elixir of iron, quinine and strychnine phosphates, U. S. P., is just that; it is not doctored up with potassium citrate or other junk. Furthermore, we do not claim that our compound solution of sodium phosphate with iron contains tincture of iron chloride, and on the same label claim that the amount of alcohol present is x per cent., the said percentage being so low that one statement or the other is necessarily untrue. Neither do we bolster up our cascara preparations with phenolphthalein or podophyllin; and any cough mixture of ours that contains 2 grains per ounce of red spruce gum contains it in a form sufficiently soluble to be detected by taste. Our expectorant with bromoform is stable, in spite of stories to the contrary circulated among our physicians, and, further, the bromoform may be detected by smell and taste, and will in over doses give the bromide rash, which the preparations of some others have failed to do.

We do not sneak up to the doctor's office, leave a few samples and sneak away again, but *take* them up and *talk* them up. We have induced the doctors to use many of our capsules instead of manufacturers' compressed tablets, on account of the greater solubility of our goods.

The lazy man and the man with no confidence in himself are the ones that are the most pernicious and persistent substitutors. We do not substitute. Any physician that writes for Bill's pap tablets gets Bill's when we fill the order, although we may be of the opinion that they are poor truck.

We make our own tablet triturates of morphine, codeine, and heroine, and all other costly tablet triturates, for we have found that on top of the 50 cent charges for making blanks, one who buys this class of goods must pay a fancy price for the drug. Codeine is listed at about \$6 an ounce; $\frac{1}{8}$ grain codeine tablets are listed at \$4.70 per thousand, less a small discount which makes them cost, net, about \$4. In 1000 tablets containing $\frac{1}{8}$ grain of codeine each there are 125 grains of the drug, which quantity, at the rate

of \$6 an ounce, is worth \$1.71. Allowing 50 cents a thousand for making the tablets, we find that we should pay \$2.21 per thousand for tablets for which the manufacturers charge \$4. By doing our own manufacturing we save the difference—\$1.75 on each thousand tablets. A cough syrup that we had to buy cost us \$4 per gallon in 5-gallon lots. We make 5 gallons of it for \$11, plus the cost of the labor, which is about 50 cents.

Pharmaceutical manufacturing is very interesting and profitable employment for us clerks to be at instead of getting stagnated by leaning on the counter or cases, or looking moon-faced because we are not treated as other clerks are.

What a lot of clerks need is enthusiasm, and when one gets that he sometimes begrudges the time it takes for him to go to his meals when he is not quite through with some proposition that is a "sticker." I always imagined that I hated the drug business until I tried some others, and found out that they all have something in them that is not a bed of roses.

Intra-State Drug Inspection.*

By CHARLES M. FORD.

The forces of the Colorado State Board of Health have for several months been engaged in safeguarding the public against adulterated and unwholesome foods, and unsanitary conditions incident to the summer season.

WHAT THE BOARD OF HEALTH IS DOING.

With the passing of warm weather it is the board's intention to learn fully the character of the drugs and medicines furnished to the people of Colorado and to inspect the establishments wherein this service is rendered.

Not only must we drive adulterated and misbranded drugs from the markets of our State, but we must see that the pharmacist performs his part in a skilful and workmanlike manner.

The most serious form of adulteration in drugs and medicines is that which results from the unskilful, slovenly and unclean manipulation on the part of the dispenser.

DIRT IN DRUG STORES.

This form of adulteration caused by filthy stores and utensils goes unchecked largely because it does not come under the public eye and because of the smaller quantity relatively of drugs that are consumed as compared with foods.

Imagine a dairy or food factory kept like some of you keep your laboratories.

CLEANLINESS AT SODA FOUNTAINS.

In behalf of the pharmacist, it must be said that his beverage department, that is, where the soda fountain is located, is in a sanitary and inviting condition in nearly all stores. This is fortunate, in view of the larger quantity one takes as a beverage than as a medicine.

It would be well if "citrate of magnesia" could be classed with the beverages and thus dispensed clean. In making this preparation, we should bear in mind that the patient takes 96 spoonfuls in one gulp. If this has passed through the wedgewood mortar, which holds in its pores the remnants of hundreds of opera-

* An address delivered before the Denver Pharmaceutical Association, September, 1911, and contributed by the author.

tions, is further contaminated by some imperfectly glazed or galvanized vessel, and then filtered in the balmy atmosphere of the shop, Omniscience only knows what it may contain in addition to what is required by the United States Pharmacopœia.

VALUE OF THE FEDERAL FOOD AND DRUGS ACT.

While in attendance upon the annual convention of the American Pharmaceutical Association at Boston last month I came in contact with a number of persons engaged in the food and drug service of several States, visited a few State departments and the National Bureau of Chemistry at Washington. I take pleasure in reiterating what has so tersely been said by others, that the greatest piece of legislation ever enacted by congress was the food and drugs law of June 30th, 1906, and that departments operating under that law comprise the most useful and beneficial branch of our national government. In comparison, the army and navy are but a means to pleasurable exercise and pastime and to furnish respectable occupation for sons of the idle rich.

POOR INSPECTION OF DRUG STORES.

It would be unfair to judge of all the States in the Union from what I have observed in the few States my limited leave of absence permitted me to visit. But if I should venture an opinion it would be that the real inspection of drug stores within the States has not yet begun. A pretended inspection consists in having an inspector purchase a sample of tincture of iodine or lime water to be analyzed or assayed rather, by the State chemist. The inspector that procures the sample is not a pharmacist, and may not be even able to spell the name of the article he is sent for. Iodine and lime water are chosen because the determination is easy and might be done by a mere tyro in pharmacy. Such inspection is only a farce and might better never be attempted. Inspection of drug stores can be made only by a pharmacist and must not be confined to those articles for which assay processes are given in the United States Pharmacopœia. Those preparations which can not be standardized and which are more or less perishable are what require the services of a skilled inspector.

Condition of premises and merchandise, equipment and methods of dispensing and compounding are all factors for determining whether or not adulteration and misbranding are present.

COMMERCIAL GRADES NOT FOR TRUE PHARMACY.

A large number of Denver stores use the commercial grade of alcohol exclusively. Some carry the commercial and U. S. P. grades both; and quite a considerable number carry only the U. S. P. quality. For all the uses for which alcohol is sold to the public, the commercial grade is sufficient. But when the fact is considered that there is but a few cents difference in the gallon price and that the U. S. P. grade is two degrees higher proof, should not the better quality be carried exclusively by all drug stores and an appropriate label affixed setting forth its high grade? For making elixirs, flavoring extracts, toilet preparations, etc., the commercial grade should never be used.

A number of substances of commercial grade, other than alcohol, are being handled by the jobbers and find their way into the stores of pharmacists. A few of these, such as the mineral acids, ammonia water, permanganate of potassium, and others, are really

used for technical purposes and in the arts, and may therefore properly find a place in your stocks. But the majority of them are known to have no commercial use whatever, and are branded as commercial, technical, regular or in such other way as to evade the application of the law, and to tempt you by a less price. Any firm, no matter what its reputation, that will market this class of goods, knowing well that they are for the drug trade, must be viewed with suspicion.

SOME ARTICLES MAY BE TOO GOOD.

Be on your guard also against any firm that offers to furnish a quality superior to that of the U. S. P. They don't have to do it. An official article that is superior to the U. S. P. is misbranded under the law of this State. An analysis would probably show that it was adulterated.

KEEPING POISON.

It is surprising the number of druggists that do not see the importance of segregating the poisons in their prescription case. It would seem that convenience, if no other consideration, would suggest that they be kept in a compartment by themselves.

DISPENSARY TABLETS.

The most objectionable thing found in any drug store of this city is the dispensary tablet. It is dangerous, unnecessary and should be prohibited by law. The most visionary of us never dreamed that after we should give over our laboratory work to the large manufacturer we should further require him to furnish all our poisons and other potent substances in ready-weighed quantities, thus doing away with the need of prescription scales entirely. It is singular, but it is true, that where these dispensary tablets are found in great variety, the prescription balance is out of order. Everybody knows that it should be firmly set on a perfectly level surface and remain in the same place all the time. The torsion balance, with its pans above the beams and a handy adjusting screw is a mischievous contrivance for the reason that it can always be forced to balance, whether correct or not. The dram weight on such a balance will weigh a few grains more or less than 60 grains, but it balances just the same.

HOFFMANN'S ANODYNE A RARITY.

It may interest you to know that very few stores in this city are prepared to furnish the official article of Hoffmann's anodyne, and that the jobbers of this city do not carry the true ethereal oil for preparing it.

NO CASTILE SOAP IN DENVER?

How many of you are aware that castile soap, the only official and legal soap in this country, is no longer a drug store article? In its stead you are strenuously forcing upon the public a rank and dangerous imitation. While in Chicago I visited an establishment that was producing 30,000 pounds a day of oils from the city's garbage. These oils are used for making toilet soap, which I believe to be more safe and healthful for the baby's bath than the so-called castile soap sold in Denver drug stores.

A 25-pound package of "black antimony" attracted my attention recently by the ease with which I moved it with my foot. Such a bulk of the true article would have weighed 50 pounds. We placed a spoonful in a glass with some hydrochloric acid to test its solu-

bility and for the purpose of diffusing a little sulphuretted hydrogen through the store. We failed to diffuse anything. It was probably just common graphite.

DRUGGISTS' PROFESSIONAL WORK.

I have been digressing much from the subject I have chosen for my remarks to-day and fear that I have already consumed the time that you expected to give me.

To be brief, there are 181 stores in Denver. About 1,200 new prescriptions are written daily—less than that number in summer time and somewhat more in the winter months. One-fourth of these are dispensed in ten downtown stores. Further figures are unnecessary. No amount of energy or effort on your part will increase the volume of the prescription business. Even if you should be able to secure your neighbor's share, it would not be worth the effort.

Some other avenue to increased patronage must be found. Let us place our heads together and see where that avenue lies.

MUCH FOR DRUGGISTS TO DO.

In the meantime, let us be ever mindful that we are primarily, essentially and devotedly pharmacists. Do not think that as professional men our occupation is gone. There is still more unlearned in the sciences of food and drugs than was ever dreamt of in any chemist's philosophy.

As well might the practitioner of medicine think his occupation gone, as he reads the signs of the osteopath, the electropath and the chiropractor, and looks out on the costly temples erected to that supermest of fads, Christian science.

Differentiating Extract of Beef and Extract of Yeast.

Yeast, which is obtained in enormous quantities as by-product in breweries and distilleries, has been utilized for some years for manufacturing medicinal and food products, and extract of yeast, on account of its low price, has become a competitor of extract of beef. In order to find a method by which the two extracts can be distinguished and by which an adulteration of extract of beef with extract of yeast can be proven, Cook (*Ann. de la Brass. et Dist.*) has examined numerous samples of both beef and yeast extracts. He obtained the following analytical results: Yeast extract leaves more ash on incineration than beef extract, but the amount of chlorine is about the same in the ash of both, namely, about 2 per cent. Yeast extract contains about one per cent. of fat compared with 7 per cent. in extract of beef. The percentage of phosphoric acid is about the same in both extracts, but is slightly higher in yeast extract when calculated in both cases for the dry, fat-free products. While beef extract contains about 12 per cent. of nitrogen, yeast extract contains only about 7.5 per cent., calculated in both cases for the dry and fat-free extract. The main difference is, however, the absence of creatine and creatinine in yeast extract, which bases are present in beef extract to an extent of about 10 per cent. Both extracts contain about the same amount of purine bases, but while these bases occur in yeast extract in the form of adenine and guanine, they occur in beef extract as xanthine and hypoxanthine. Finally beef extract contains lactic acid, which is never present in yeast extract.

Pharmacopœial and Commercial Aconite.*

BY WILLIAM MANSFIELD, PHAR. D.

Various species of aconite have been used from ancient times, first for criminal purposes and in latter times for their medicinal value. The United States and British pharmacopœias recognize only the tuberous root of *aconitum napellus*, yet the requirements of the two pharmacopœias are quite different. There is no doubt about the kind of tuberous root official in the British Pharmacopœia as it states clearly that aconite must be grown in England and that the tuber must be collected in autumn and have an undeveloped flower bud. This means that it is the tuber separated from the tuber bearing the flower cluster at the close of the flowering season. The United States Pharmacopœia states that aconite is the dried tuberous root of *aconitum napellus* collected in autumn. In the description it says: "Slenderly conical, 4 to 10 cm. long, 10 to 20 mm. thick at the crown; occasionally split;" etc.; no mention being made of an undeveloped bud or a hollow stem base; so that apparently one may take his choice of a tuber with an undeveloped flower bud, which is a plump starchy tuber, or a tuber which is shriveled and heavily wrinkled, containing little starch and with a sunken stem base, that is, if the stem were cut on a level with the tuber.

Let us now consider the aconite of commerce. A very small percentage of commercial aconite consists of a starchy tuber with an undeveloped flower bud. These occur usually attached to the mother tubers. The tuber with the flower stem removed to the level of the tuber is not usual. The usual type of aconite of commerce is an aconite tuber which bore the flower cluster and with portions of the flowering stem, varying from $\frac{1}{4}$ to 3 inches in length. The United States Pharmacopœia does not allow any stem to be present, yet it is practically impossible to find a sample of aconite in the market without stems. This means that the average sample of aconite does not meet the requirements of the United States Pharmacopœia. Fortunately we have a chemical check on aconite, and if it yields 0.5 per cent. of aconitine upon assay, it will meet the official requirements chemically, if not botanically.

In order to see if the starchy tuber contained as much aconitine as the non-starchy tuber, assays were made of the tubers occurring in pairs after being separated and reduced to a number forty powder. The result of the analysis showed the non-starchy tuberous root to be richer in aconitine than the starchy tuberous root. While the evidence is not conclusive it tends to show the comparative amounts of the active constituents present in the starchy and non-starchy tuberous root. Economically only the tuber which bore the flower stem should be used. The separated daughter tuber may be planted to produce the flower cluster and a daughter tuber which at the close of its flowering period may be collected for market. It interested me to note that through the short rhizome which connects the two tuberous roots, two vascular strands pass, each with a distinct endodermis. If observed closely, many of the specimens will show where this rhizome has been cut across separating the two tuberous roots and showing the two vascular strands.

Briefly stated, there are five types of *aconitum na-*

* Read at the 1911 meeting of the American Pharmaceutical Association.

pellus on the market: first, starchy aconite with an undeveloped terminal flower bud; second, non-starchy aconite with a hollow stem base; third, non-starchy aconite with stem base attached (usual type); fourth, aconite in pairs, the non-starchy tuber with a hollow stem base or a portion of the stem, together with a starchy tuber having an undeveloped flower bud; and fifth, combinations of the above four types.

If the non-starchy tuber only be collected there would be insured a constant supply. There is no question but that the tuber bearing the flower cluster will, when freed from any portion of the stem, meet the official requirements. Specimen number one illustrates such a sample and assays 0.6 per cent. of aconitine. At any rate let the next United States Pharmacopœia state whether the tuberous root with an undeveloped flower bud, or the tuberous root which bore the flower cluster shall be used; and also what length of stem base, if any, will be allowed.

POWDERED ACONITUM NAPELLUS.

Powdered aconite stems exhibit many striking and characteristic cells. The epidermal cells occur usually as opaque or translucent reddish-brown fragments. It sometimes happens that the cell wall is broken and the contents forced out; it is then possible to see the outline of the epidermal cells and the stoma. The guard cells are clear and are found on a level with the surrounding cells (10). The transverse parenchyma (1) has about the same appearance in the powder that it has in the cross section. The longitudinal parenchyma with starch (2) is more abundant in a number eighty powder. Number 2' is longitudinal parenchyma with an intercellular space, but free from starch. The stone cells (3) vary in form and size and the walls and cells contents are often reddish-brown or, if the walls are whitish, the contents will be reddish-brown. The fibers (4) vary in length and diameter, the walls have simple pores and the one end is often square or blunt. The simplest conducting cells have spiral thickening of the walls, and this is often seen detached in the form of a true spiral (5). Pitted cells with bordered pores (6) and reticulate conducting cells (7) are found. Scattered throughout the field are found single rounded starch grains (8), with cleft hilum, two-compound grains with a V-shaped hilum, and compound grains with an indistinct hilum. The pith parenchyma cells (9) when seen in longitudinal view have numerous pores. The presence of aconite stems in powdered aconite is clearly shown by the fibers (4), by the thicker-walled parenchyma cells (2), by the epidermis with stoma (10), and by fewer stone cells. The fibers can also be determined chemically by an estimation of the crude fiber.

STRUCTURE OF THE CROSS SECTION OF ACONITUM NAPELLUS STEM.

In the cross section of the larger stem bases of aconitum napellus, there are fifty or more bundles. The fibers form nearly a complete ring with an arch of

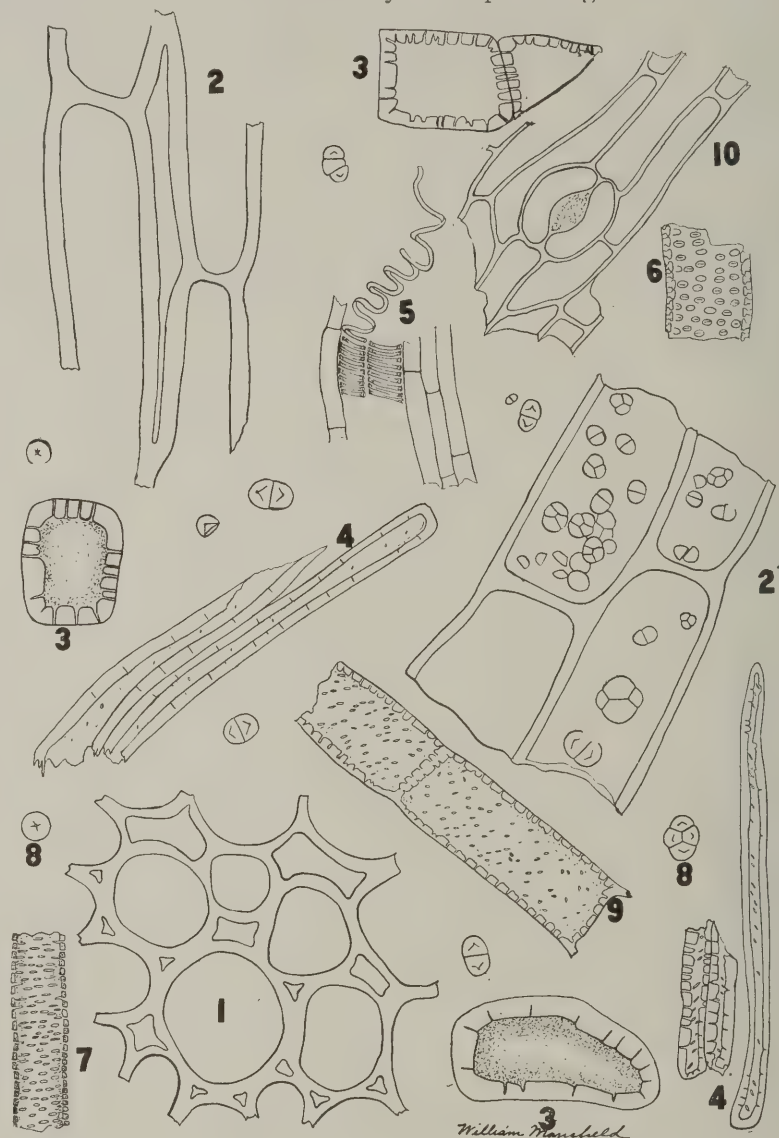


Figure 1.
(Powdered Aconite Stems.)

1. Transverse parenchyma with intercellular spaces. 2. Longitudinal parenchyma with starch grains. 3. Stone cells (often with dark brown contents). 4. Fibers. 5. Conducting cells with spiral thickening and xylem parenchyma. 6. Part of a pitted vessel with bordered pores. 7. Reticulated conducting cells. 8. Starch, single and compound, scattered throughout the field. 9. Pith parenchyma with porous walls. 10. Stomata, guard cells and surrounding cells of the epidermis.

fibers just outward from each phloem portion of the bundle and extending inward often completely enclosing the xylem and forming a closed collateral bundle. This is true only of the older formed bundles. As the stem increases in diameter new bundles are formed which at first have fibers surrounding only the phloem portion of the bundle and then only a few cells wide. The cross section exhibits the following structure: The epidermal cells (1) are radially elongated, thin-walled cells with reddish-brown contents; the cortical

parenchyma cells (2) are thick-walled, nearly circular in outline, with prominent, mostly triangular intercellular spaces, becoming smaller and smaller as we near the fibrous sheath. Among the cortical parenchyma cells are found large thin-walled stone cells



Figure 2.
Cross Section of Aconite Stem.

1. Epidermal cells with reddish-brown cell contents. 2. Cortical parenchyma with intercellular spaces. 3. Stone cells. 4. Fibers. 5. Sieve and surrounding cells. 6. Ducts and tracheids. 7. Xylem parenchyma. 8. Fibers. 9. Pith parenchyma. 10. Intercellular space.

(3). Frequently not more than one is found between the epidermis and the fibrous layer, while in other sections several stone cells occur. The fibers (4) have a rounded outline, the walls are yellowish-white, thick, with small cell cavity and show clearly the line of sep-

aration of the fibers, which appear as a dark line between the cells. The fibers (8) inward from the xylem are thinner-walled than those surrounding the phloem. The cells of the phloem (5) are thin-walled and irregular in outline, no sharp distinction being seen between true sieve cells and surrounding cells. In some of the bundles the cambium cells are quite distinct; while in other bundles no characteristic cambium was observed. The conducting cells of the xylem (6) vary greatly in diameter and are surrounded by parenchyma cells (7). The pith parenchyma cells (9) are thick-walled, nearly circular in outline and filled with starch grains. The intercellular spaces (10) are larger than in the cortex and they are quite frequently quadrangular or pentangular.

Liquid Toilet Soap.*

By P. HENRY UTECH.

One of the chief sources of the pharmacist's revenue is derived, as you all know, from the sale of his own-make specialties. I would therefore like to call your attention to one such, which I do not believe is being extensively exploited as yet by the average pharmacist; one that can be easily prepared by himself, and one which will yield him a nice margin of profit in return. I refer to the preparation known as liquid toilet soap.

Until recent years liquid preparations of soap were very little used by the laity, being employed chiefly as an external form of medication in certain cutaneous diseases, the idea originating, I believe, with certain German dermatologists. But several natural advantages which they possess over the ordinary hard soaps for toilet and domestic purposes furnishes the occasion for introducing the subject to your notice at this time. Occurring as they do in liquid form, they are much more readily, as well as easily, adaptable to ordinary use for the toilet, bath, shampoo, etc. From a hygienic standpoint they also offer the advantages of immunity from infection, which is not infrequently caused by different persons using the same piece of soap in cake form. Hard soaps are likewise inferior to soap liquids, in that they have to become liquefied, or, rather, emulsified somewhat, before they exhibit their detergent property.

A new and very extensive field for the use of liquid soaps in germicidal combination has been developed recently, and no doubt your attention has already been called to their use in some of our larger public institutions, such as hospitals, hotels, etc. This idea was inspired, as you well know, by the widespread interest people have taken in matters of public hygiene and sanitation of late years. Soaps for such purposes could be easily made from the formula herewith appended, simply by incorporating a small quantity of phenol, mercury bichloride, formaldehyde, or any of the other ordinary germicides.

But the preparation which we have been most successful in exploiting is one which we have named "liquid aromatic shampoo soap." The formula is one suggested by Wilbert some years ago,† with but a slight modification. Numerous experiments were carried out with the ordinary fixed oils, such as linseed,

* Read at the 1911 meeting of the Pennsylvania Pharmaceutical Association.

† See THE DRUGGISTS CIRCULAR for October, 1907, page 631.—Editor THE DRUGGISTS CIRCULAR.

sesame, malaga olive oil and mixtures of these with cottonseed oil, but all were found to be objectionable for some reason or other.

The formula we now use is as follows:

Sodium hydroxide.....	80 grammes.
Potassium hydroxide.....	80 grammes.
Cottonseed oil.....	1,000 c.c. (mils).
Alcohol	500 c.c. (mils).
Water	2,500 c.c. (mils),

Dissolve the hydroxides in 500 c.c. (mils) of water. After solution has been effected, add the alcohol, and, finally, the cottonseed oil, in several portions, and shake thoroughly. Allow to stand for several hours, shaking the mixture occasionally, until thoroughly saponified. Finally add water sufficient to make 2500 c.c. (mils).

To the soap liquid thus prepared add:

Potassium carbonate.....	30 grammes.
Terpineol	12 c.c. (mils)

This soap can be made at a cost of about 75 cents a gallon. Dispense it in 4-ounce bottles at 25 cents. The trade packages of similar products seldom contain more, and retail at 50 cents—a good talking point. By putting a little personal push back of this product it can be made into a very profitable specialty.

Druggists and Habit-Forming Drugs.*

By DR. WILLIAM JAY SCHIEFFELIN.

During the last session of the sixty-first congress, which expired on March 4th, 1911, hearings were given by the ways and means committee of the house on the Foster bill, imposing a tax upon and regulating the production, manufacture and distribution of certain habit-forming drugs. Your president and the chairman of our committee on legislation, as well as other representatives of the drug trade, appeared at these hearings and gave their views upon this bill, which was sweeping in its requirements. The bill required every dealer to affix an internal revenue stamp and keep an accurate record, not only of all drugs named in the bill, but of all preparations containing them in any quantity, no matter how small. It would be practically impossible for dealers to comply with these requirements, and we urged the committee to amend it by not making it apply to the minute quantities. It is likely that this matter will come up again at the session of congress, which will convene in December next, and we know the members of this association are unanimous in their desire for the passage of a national law which will effectively regulate interstate traffic in habit-forming drugs, as stated in the resolution which we adopted at our meeting last year.

We who are in the drug business feel the responsibility involved in dealing in these habit-forming drugs. None of us wishes to make money by selling drugs which will harm our fellow men.

We cannot with a clear conscience try to prevent the passage of effective measures to control the sale of narcotics, nor is it enough for us to express our approval of such legislation and then use no effort to secure its enactment.

It is our duty to be familiar with the facts regard-

ing the effects of these drugs and also the extent of their use.

Nor should we confine our attention to drugs alone, because certain so-called soft drinks, which have been fortified by the addition of caffeine, are a menace on account of their habit-forming character. There can be no doubt that their promiscuous sale to children should be stopped.

Disintegration of Pills.

In a paper read at the recent meeting of the American Pharmaceutical Association, L. D. Havenhill and N. E. Stevenson gave an account of some experiments conducted by them to determine the rate of disintegration of pills of various sizes, ages, composition and coatings. They said:

"We endeavored to make the conditions of our experiments as favorable at least as those existing within the human body. In order to secure continued action from the disintegrating solution the pills were placed in wire cloth baskets and suspended in test tubes about 1/2 inch below the surface of the 20 c.c. (mils) of solution. These test tubes were placed in a water bath and a temperature of from 37° to 38° C. maintained throughout the experiment. The pills were rubbed gently with a glass rod about every five minutes to give us an opportunity to note the progress of disintegration as well as to simulate the action of the muscular coats of the digestive organs. The effect of this manipulation with the glass rod was subsequently ascertained to shorten the time of disintegration about 20 per cent. Two disintegrating liquids were used, (1) an aqueous solution containing 2 per cent. of pepsin and 0.25 per cent. of hydrochloric acid, and (2) distilled water. The maximum variation in any case was not more than 10 per cent. of the mean result. . . .

"A little more than 50 per cent. of the pills were more rapidly disintegrated in water than in pepsin solution. It was thought that the colloidal nature of the pepsin might have been responsible for this, but repeated experiments with the solution to which peptone had been added failed to confirm this opinion. In only one instance did the kind of coating make any material difference in the rate of disintegration in the different liquids. This pill had a thick coating of gelatin and required 530 minutes in water or nearly four times as long as in the pepsin solution. Fifty-six per cent. of the pills in pepsin solution and 53 per cent. in water were disintegrated within sixty minutes and in each solution 90 per cent. were disintegrated within ninety minutes. In most of the cases where disintegration was slow the therapeutic nature of the pill was such that this was not seriously objectionable.

"It may be said that our results tend to show that the rate of disintegration depends primarily upon the composition, size, and coating, and that the age exerts only a slight influence."

Lubricant for Glass Stop-Cocks.

The following formula for making a lubricant for glass stop-cocks is given in the *Journal de pharmacie et de chimie*: 12 grams of petrolatum and 1 gramme of paraffin are heated in a porcelain dish and into the hot solution 16 grammes of gutta-percha, cut in small pieces, are added with constant stirring and the heating continued until a homogeneous mixture is obtained. The mass is then allowed to cool.

* Portion of the presidential address delivered at the recent meeting of the National Wholesale Druggists' Association.

Suggestions for Changes to be Made in the Pharmacopœia.

At the recent meeting of the New York State Pharmaceutical Association an elaborate report was made by the committee on pharmacopœial revision, of which Dr. George C. Diekman was chairman. It is noted that some of the recommendations made in this report have been adopted by the official committee of revision. Herewith are presented a few excerpts from Dr. Diekman's excellent report:

Tincturi Opii.

Tincture of Opium.

Granulated opium.....	100 grammes.
Alcohol	500 c.c. (mils).
Diluted alcohol, a sufficient quantity, Water, a sufficient quantity, To make.....	1000 c.c. (mils).

Heat 500 c.c. (mils) of water to boiling, and pour it on the granulated opium and stir thoroughly, occasionally, until the mixture becomes cold. Strain through muslin, expressing the residue, and reserve this infusion. Repeat the extraction with portions of 250 c.c. (mils) of water until the opium is exhausted. Evaporate the second and succeeding portions of infusion, on a water-bath, to a soft extract. Dissolve this extract in the reserved infusion, and transfer to a calibrated bottle, using the alcohol. Dilute to 1000 c.c. (mils) with water. Mix thoroughly and allow to stand over night. Decant through a filter, and wash the bottle and filter with enough diluted alcohol to make the filtrate measure 1000 c.c. (mils).

Cataplasma of Kaolin is all right when freshly made as called for. It is then not necessary to heat the kaolin.

[It should be noted that germs of tetanus, etc., may be present in the kaolin; hence thorough heating is a wise precaution.—Editor THE DRUGGISTS CIRCULAR.]

Compound Antiseptic Solution would be improved by the addition of a small amount of glycerin.

Making Tinctures from Fluidextracts: While this may be permissible in a few cases, the great danger is in the abuse. There is reason to believe that there are quite a number of druggists and physicians who carry this easy process to the extreme and make such preparations as paregoric, tincture of benzoin, and compound tincture of benzoin from fluidextracts, and even fluidextract of asafetida (so-called) is sold for the purpose of making tincture and milk therefrom. On several occasions these have been compared with U. S. P. preparations and the difference was very marked.

Mercurial Ointment: To the formula add some wool-fat. This will expedite the division of the mercury.

Elixir Ferri, Quininae et Strychninae Phosphatum.

Elixir of the Phosphates of Iron, Quinine and Strychnine.

Soluble ferric phosphate.....	32.00 grammes.
Quinine phosphate.....	8.50 grammes.
Strychnine phosphate.....	0.24 gramme.
Alcohol	250.00 c.c. (mils).
Oil of sweet orange.....	2.00 c.c. (mils).
Glycerin	300.00 c.c. (mils).
Distilled water, sufficient to make	1000.00 c.c. (mils).

Dissolve the ferric phosphate in 300 c.c. (mils) of distilled water by cold maceration; dissolve the quinine and strychnine phosphates and oil of sweet orange in the alcohol, warming if necessary, to effect solution; add the glycerin to the iron solution, then the alcoholic solution and enough distilled water to make 1000 c.c. (mils). Allow to stand for twenty-four hours and filter.

The following improved formula by S. A. Sharp, if carefully followed, proves a speedy method and results in a permanent preparation:

Strychnine phosphate.....	0.275 gramme.
Quinine phosphate.....	8.75 grammes.
Soluble ferric phosphate.....	17.50 grammes.
Phosphoric acid (85%).....	2.00 c.c. (mils).
Potassium citrate.....	2.00 grammes.
Diluted alcohol.....	150.00 c.c. (mils).
Distilled water.....	150.00 c.c. (mils).
Elixir of orange, enough to make	1000.00 c.c. (mils).

Dissolve the scaled iron phosphate in 150 c.c. (mils) of distilled water with the aid of heat; and the quinine phosphate in the 150 c.c. (mils) of diluted alcohol, con-

taining the phosphoric acid. To the solution of iron phosphate add the potassium citrate and the strychnine phosphate. Heat the elixir of orange to about 100° F. in a closed vessel and add the solution of quinine phosphate, and lastly the solution containing the iron, strychnine and potassium citrate, previously warmed to about 100° F. Filter, if necessary, and protect the elixir from light, in dark amber-colored bottles.

Camphor: Charles H. LaWall has studied the degree of volatility of camphor in order to determine the ground for the defense often made when a manufacturer is prosecuted for deficiency in strength, when discovered in preparations and claim it is due to volatility of the camphor.

Lump camphor lost by volatilization in one day 1.56 per cent.; in four days, 8.74 per cent.; in fourteen days, 23.46 per cent.; in twenty-eight days, 43.36 per cent.; in forty-five days, 61.95 per cent.

Powdered camphor lost by volatilization in one day, 18.8 per cent.; in four days, 33.3 per cent.; in fourteen days, 83.7 per cent.; in twenty days, 99.9 per cent.

Liniment of camphor lost in fourteen days, 0.25 per cent.; in one month, 0.79 per cent., so that after the one month's exposure at about 40° C., a preparation originally 20 per cent. strength retained 19.21 per cent. of camphor.

Spirit of camphor increased in strength upon exposure due to the more rapid volatilization of alcohol; being of a strength of 10 grammes in 100 c.c. (mils) originally, in one month the strength was found to be 12.04 grammes in 100 c.c. (mils).

He concludes that the normal loss of camphor by evaporation in preparations of camphor is negligible.

Collodium Cantharidatum.

Cantharidal Collodion.

Cantharides, in fine powder.....	60 grammes.
Glacial acetic acid.....	5 c.c. (mils).
Pyroxylin	4 grammes.
Camphor	1 gramme.
Acetone..a sufficient quantity to make	100 grammes.

Mix the glacial acetic acid with 55 c.c. (mils) of acetone and moisten the powdered cantharides with this mixture, setting it aside in a closely covered container for twenty-four hours. Then pack it in a cylindrical percolator and slowly displace with acetone until exhausted. Reduce the percolate by distillation, on a water-bath to 95 grammes and when cold dissolve in this the pyroxylin and camphor. If necessary, make up weight with acetone to 100 grammes.

It is stated that this preparation is a marked improvement over the cantharidal collodion now official and should replace it in the next revision.

Fluidextractum Glycyrrhizæ.

Fluidextract of Glycyrrhiza.

The following improved formula for this fluidextract is suggested:

Glycyrrhiza	1000 grammes.
Ammonia water.....	50 c.c. (mils).
Alcohol, a sufficient quantity, Water, a sufficient quantity, To make.....	1000 cc. (mils).

Mix the ammonia water with sufficient water to make 1000 c.c. (mils), and having moistened the ground drug with 700 c.c. (mils) of the mixture, pack it in a cylindrical glass percolator; then add enough menstruum to saturate the drug and leave a stratum above it. When the liquid begins to drop from the percolator close the lower orifice and, having closely covered the percolator, allow it to macerate for forty-eight hours. Then allow the percolation to proceed gradually, adding first, the remainder of the menstruum and then water until the drug is exhausted. Reserve the first 500 c.c. (mils) of the percolate and add to this 250 c.c. (mils) of alcohol and set the mixture aside in a stoppered bottle. Evaporate the remainder of the percolate to a soft extract; dissolve this in the reserved portion and allow the mixture to stand for two or three days. Then filter and wash the filter with a mixture of alcohol one volume, water three volumes, to make the fluidextract measure 1000 c.c. (mils).

Syrupus Aurantii. Syrup of Orange.

The present official method is destructive of the fine aroma of the tincture of sweet orange peel and leaves with the magnesium carbonate a large proportion of the flavor. The following is recommended as an improvement, retain-

ing all the flavor of the tincture and not exposing this to oxidation:

Tincture of sweet orange peel.....	50 c.c. (mils).
Citric acid.....	5 grammes.
Glycerin	100 c.c. (mils).
Syrup..a sufficient quantity to make 1000 c.c. (mils).	

Dissolve the citric acid in 500 c.c. (mils) of syrup mixed with the glycerin. Gradually add the tincture of sweet orange peel, shaking after each addition, then add sufficient syrup to make 1000 c.c. (mils). The improvement in flavor over the present U. S. P. formula is marked and the opalescence is scarcely perceptible.

Syrupus Ipecacuanhæ.

Syrup of Ipecac.

This syrup may be readily prepared direct from the powdered drug without any deviation from the official strength or ingredients. The following is the improved formula proposed:

Powdered ipecac.....	70 grammes.
Acetic acid.....	10 c.c. (mils).
Glycerin	100 c.c. (mils).
Sugar	750 grammes.
Water..a sufficient quantity to make 1000 c.c. (mils).	

Percolate the ipecac with a mixture of the acetic acid, glycerin and 290 c.c. (mils) of water, and then continue the percolation with water until 600 c.c. (mils) of percolate are obtained. In this dissolve the sugar, and add a sufficient quantity of water to make the product measure 1000 c.c. (mils).

Syrupus Kramerieæ.

Syrup of Krameria.

The official formula illustrates the use of fluidextracts to the limit and despite the relatively large amount of alcohol present, does not keep well. Mr. E. Fullerton Cook characterizes this syrup as "pharmaceutically unsatisfactory." He adds: "When the fluidextract and syrup are mixed, a coagulated mass, almost too thick to pour, results. As this syrup stands it separates into two layers, a clear, dark-reddish liquid above, and a cloudy portion occupying about three-quarters of the bottle with a heavy precipitate at the bottom."

For this, the following formula is submitted:

Krameria (No. 20 powder).....	450 grammes.
Glycerin	225 c.c. (mils).
Sugar	650 grammes.
Water..a sufficient quantity to make 1000 c.c. (mils).	

Mix the glycerin with 675 c.c. (mils) of water and percolate the krameria with this mixture; then continue percolation with water until the drug is extracted; evaporate the percolate to 650 c.c (mils) and in this, while still warm, dissolve the sugar. Strain the liquid and add sufficient distilled water to make 1000 c.c. (mils) of product.

As an alternative formula:

Fluidglycerate of krameria.....	450 c.c. (mils).
Syrup	550 c.c. (mils).

Mix.

Either of these formulas yields a clear liquid which keeps fairly well without gelatinizing or precipitating.

Syrupus Scillæ Compositum.

Compound Syrup of Squill.

In order critically to test the official formula, samples of fluidextract of squill and fluidextract of senega were prepared strictly in accordance with the Pharmacopœia.

The following formula is the result of an experiment:

Squill (No. 20 powder).....	80 grammes.
Senega (No. 20 powder).....	80 grammes.
Antimony and potassium tartrate...	2 grammes.
Acetic acid.....	20 c.c. (mils).
Glycerin	100 c.c. (mils).
Sugar	700 grammes.
Water..a sufficient quantity to make 1000 c.c. (mils).	

Mix the drugs and moisten with sufficient of a mixture of the glycerin, acetic acid and 300 c.c. (mils) of water. Place loosely in a percolator, cover, and allow to macerate for twenty-four hours. Then shake down so as to pack lightly and proceed to percolate, using the remainder of the menstruum, and then water until exhausted. Reserve the first 500 c.c. (mils) of the percolate; evaporate the remainder to 100 c.c. (mils), in which dissolve the antimony and potassium tartrate, and when cold, filter into the reserve; then dissolve the sugar by agitation. Strain, if necessary, and add sufficient water to obtain 1000 c.c. (mils) of the product.

Unfit Candidates for West Point.*

That the defeat of Napoleon at Waterloo was merely due to an oversight; that Robert E. Lee and Stonewall Jackson fought the battles of Trenton and Princeton; that Nebuchadnezzar was a prophet, "noted for his foreseings," and that Mason and Dixon's line divides the States of Maryland and Georgia were a few of the historical and literary discrepancies discovered in the entrance examination papers of many young men who recently were nominated for cadetship in the United States Military Academy by senators and congressmen from various States in the Union. Needless to say none of the young men who handed in the papers containing the above interesting "facts" was admitted to the academy.

Excerpts from the entrance examination papers referred to form one of the most interesting parts of the annual report of Maj.-Gen. Thomas H. Barry, the superintendent of the academy, which report is made public to-day. Gen. Barry refers regretfully to a condition which, he says, seems to indicate that proper care is not exercised in the selection of candidates for West Point cadetships, and also that the methods of instruction in vogue in the schools of the country are not satisfactory.

Gen. Barry cites questions that were put to candidates in the examination of July 5th last, those answering them being required "to exhibit a fair knowledge of the names of the most prominent English and American authors and of the names of their principal works."

This is what happened to Robert Burns of Scotland when a question involving a knowledge of his life and works was asked. The answers are from the original papers, delivered to the authorities at West Point:

Robert Burns was and English he was born in England and his parents were very poor. All during Roberts early child hood he showed that he was very bright. He is considered one of the greatest English His poems sound different from that of the other poets. The sound much more smoother. * *

Burns early education was obtain thro his mother and a poor school. To which he could attend only a few months a year.

As Burns grew in man hood he feel in with companions. The results were he became a drunken. * * *

Burns was of Scotch descent. His people were poor and ignorant. His opportunities were not good but he was determine. The poetical blood seemed to have run through his veins. He knew the peasant life well and it influenced his works of later years. No poet has even been able too surpass him in describing the peasant life.

Another question required a knowledge of Napoleon and the battle of Waterloo. Here are three of the answers:

* Any connection which this article has with pharmacy or the drug business is so slight that some sort of explanation or apology for its appearance here seems due to our readers. The article is here presented simply because it has some bearing on the general unpreparedness of many young men who have attended school for years, to qualify mentally for serious vocational study, whether that study be of pharmacy or of military art and science. There is this difference, however, between the outlook of the young man who would enter our government military academy and the one who would study pharmacy at college: the latter can always find some college glad to take his money and count him in to swell the total number of its students and graduates, even though he may never be able to "pass the board" and become a full-fledged pharmacist.

The present article reached us in the shape of a press dispatch from West Point, dated October 11th, printed in the daily papers.—Editor THE DRUGGISTS CIRCULAR.

The battle of Waterloo where Napoleon the most noted and powerful ruler also general that Europe has ever produced is what met his defeat his defeat was merely an oversight on his part.

The Battle of Waterloo was fought between the French and English. The French were led by Napoleon and the English by Lord Wellington.

Napoleon had captured most of Europe and had been carrying on a war against England. The English were the better on seas but the French beat them on land.

Examples of failure to exhibit a fair knowledge of English literary history are found in the following answers to the question: "In a few paragraphs, mention the chief characteristics and the most important writers of the nineteenth century English literature."

The important writers of the 19th Century were nearly all raised as poor boys from poor families. The one we should class first among them is Longfellow. After his death. The people of England thought so much about him, they ask for his bust for the Poets Corner in Westminster Abbey. It stands in a prominent place to-day.

There were a number of good writers such as Johnson, Jonson, Tennyson, and etc.

The age as a whole may be classed as the Interdiction of the Novel because the majority of the work was prose and the majority of the prose were novels we have of coarse poets, such as Wordsworth, Shelly, Keats, Byron. But we also have Dickens, George Eliot, Thackeray, Carlyle with his essays The characteristics of the literature was love of nature in Burns and Wordsworth.

Some of the most important writers of the nineteenth century are Ellen Wheeler Wilcox, Elbert Hubbard, Jack London, Walt Whitman and Dorothy Dix. Among this number two of them are women and their pieces and writings are very interesting. Elbert Hubbard is somewhat of a philosopher. He is also a splendid writer. He wrote the Doctor and a good many other books. Jack London is more of a novelist than a writer. His chief work is writing up prize fights and other things. Walt Whitman is called the poet philosopher and his works are very interesting. He writes for all of the newspapers.

"As evidence of complete unfitness," Gen. Barry says, "to take the examination in history for this academy, the following answers to questions asked in the recent examination are submitted:

Nebuchadnezzar was a prophet and was noted for his foretellings. He told the certain things would happen and they did happen.

He was ancient king and was a soldier. He compelled to eat grass and live in the forest for about nine years. He founded the city Nineveh.

Nebuchadnezzar was an Egyptian ruler, noted for founding a library. Gave Egypt a good start.

Macedonian Phalanx was a division of the Army of Macedonia. Roman Legion was the Roman army.

In the battle of Crecy these opposing forces met and the result was in favor of the Romans.

The Republic of Panama was established by the United States against the wishes of England in about 1807. We almost had trouble on account of our "Monroe Doctrine."

The Mexican Government was unbearable thereby causing the southern part to rebel and form a republic.

Panama was under the control of Venezuela. She was mistreated and misgoverned and asked foreign nations for recognition as independent. The U. S. sent fleets over to Venezuela and forced her to recognize Panama's independence.

Gen. Barry, in commenting on these and other answers, says that "it is incredible that if proper means are used to find suitable applicants the honor of an appointment as candidate for entrance to the military academy should go begging. There are surely thousands of young men in this country well grounded in the essential branches required of candidates who would welcome the chance to enter the military service as a cadet. It seems reasonable to urge that the fitness of the appointees be thoroughly tested before they are allowed to take the entrance examinations."

Three entrance examinations have been held at

West Point since January of this year. For the first examination 553 candidates were nominated. Of this number 165 failed mentally, but qualified physically; 42 failed both physically and mentally, and 15 qualified mentally but were rejected for physical reasons. Of the remainder, 122 failed to report for the examination and 170 successfully passed it. In the second examination 96 of 242 candidates failed mentally, 40 failed to report, 9 qualified mentally but failed physically. Seventy-eight passed the examination. On July 5th, 83 young men were nominated. Forty-nine of the 83 failed mentally, and of the total only 15 were found to be qualified for admission to the academy.

Gathering Rubber.*

The importations of crude rubber have grown steadily through the decades, as shown in the round figures: In 1889, 16,800,000 pounds; in 1890, 33,850,500 pounds; in 1900, 49,400,000 pounds; in 1908, 63,300,000 pounds; in 1909, 83,359,895 pounds; in 1910, 101,044,681 pounds; while in 1911 they fell to 72,046,260 pounds.

The term "Para" rubber is current in the rubber manufacturing trades. More distinctly this rubber might be called Amazon rubber, for the Brazilian supply comes almost exclusively from that great river and its tributaries. Para, eighty miles inland on the main channel of the Amazon, is one of the several ports of shipment, and one of the largest.

Everything and anything that will float as a craft is used in taking the rubber gatherer to and from his field of milk trees. He may take his outfit into the steamerage portion of a magnificent steamer and travel a thousand miles up the mighty river; or he may equip himself with some sort of flat-bottom scow and spend months getting up into the far tributary regions where he is to find his forest of work.

Working up against the heavy currents of the Amazon and its tributaries, the rubber collector hugs the shores and poles and paddles and pulls his craft—anything to get there with his craft. There's little enough in the boat that even a hungry Dusty Rhodes would think of taking.

There's the invariable yellow dog. The senora and the dark kids and the baby are there. One or two shotguns one hundred years out of date, cotton hammocks, two dented zinc trunks, several pails, miscellany that could not be interpreted north of the Panama ditch, and particularly a green parrot sitting dejectedly somewhere on some kind of a perch. This is the outfit, together with whatever of food supplies brought from Brazilian civilization have been advanced to him on credit by the merchant to whom he is to sell later the crude rubber for which he is in search.

But whether the rubber collector thus equipped goes up in his boat or pays the freight for himself, family and equipment, he must leave the steamer somewhere at the mouth of a swift tributary, if he has chosen that route, and then it is literally a case of taking to the woods.

It is the simple life there. So simple that most of the family would be locked up if they appeared that way in Chicago on a summer day when the thermometer is high in the nineties. The rubber collector himself has the bulk of the clothing, protecting him

* Abstract of an article in *Chicago Tribune*.

from the saw-edged grass, thorns and thickets, to say nothing of the poisonous animal life that may menace him. He leaves his thatched roof tree with his frowsy wife and dark, naked children, and with a big knife, a shotgun, a galvanized pail and a number of "nested" tin boxes akin to cake tins, takes to the habitat of the rubber trees which have been assigned to him.

With the big knife he "taps" the first giant tree of the botanical *hevea braziliensis* class, starts the white sap running, and, with a bit of a stiff clay, fastens the pan to the tree to receive it.

If he is working briskly—making allowance for the word brisk in such a climate—he is ready to turn back with his pail within an hour or so to that first tree, empty the tin box into the pail, replace it, and follow on down the line of his tappings. He should have a pail full of the sap when the day is done and he lugs it home by main strength—a strength built upon the regulation jerked beef, black beans and yellow tapioca.

At home he builds his fire, ladles out sap from the pail, holds it over the heat and smoke of the fire until it begins to harden, then pours it into a heated iron pot. Ladle after ladle is treated this way until, when the sap pail is emptied and the pot is cooled, he dumps out an ovoid lump of rubber not unlike a foot ball in shape and sometimes larger and sometimes smaller than the regulation "pigskin" of the universities. And this is the crude rubber of our commerce, of which we need a pound a year for every man, woman and child in the nation.

This rubber collector has not worked uncomfortably hard, but neither has he loafed on the job. If he has worked only one season previous to this he understands that his employer who "staked" him is going to have a tremendous offset account against him by the time he gets back from his season's work.

Under the tropic sun and in the swampy country he is sure to contract malaria. To offset it he takes huge quantities of almost any kind of drug that tastes nasty enough to encourage his hopes. Often the fatal beriberi attacks him, his legs swell to immense size, and he may die inside any given five minutes by the watch.

Then there are the Indians who not only don't like the rubber collector, but who do like some of the stuff to be found in the rubber station's storehouse—rum and gunpowder, for example. And year after year some of these stations in the woods go up in the smoke of the incendiary Indian and the collector and his family disappear forever.

But we may need two pounds of rubber per capita in the next ten years; which means that rubber hunting must go on, regardless of the rubber hunter and his long chances against death.

Date Stones as a Cattle Food.

In southern Tunisia ground date stones are used quite extensively by the natives as a food for asses and camels. This meal has been analyzed by de la Gardelle (*Chem. and Drug.*), who concludes that it is of real alimentary value as it contains about 24 per cent. of carbohydrates; 10 per cent of nitrogen; and 2 per cent. of fatty matter. We have no mention, however, as to whether the stones have been actually proved to be digestible.

Winter Washes for Fruit Trees.

The appended formulas are offered by the *Chemist and Druggist*:

Alkali Winter Wash.

Sodium hydroxide (98%).....	1 pound.
Potassium hydroxide (80%).....	1 pound.
Common treacle.....	$\frac{3}{4}$ pound.
Water to make.....	1 gallon.

Dissolve the two hydroxides separately in a little water. When the solutions have cooled, mix them, add the treacle, then the rest of the water.

For use, 1 part of this wash is to be diluted with 99 parts of water.

Woburn Winter Wash.

Soft soap.....	$\frac{1}{2}$ pound.
Kerosene	5 pints.
Sodium hydroxide.....	$2\frac{1}{2}$ pounds.
Water.....	enough to make 2 gallons.

Dissolve the soap in 4 pints of water, heating if necessary; incorporate thoroughly the kerosene; add the sodium hydroxide and the rest of the water.

One gallon of this mixture should be diluted with water to make 50 gallons of wash.

Witchhazel Lotion.

Quince seed.....	45 grains.
Boric acid.....	5 grains.
Benzoic acid.....	5 grains.
Glycerin	2 ounces.
Alcohol	3 ounces.
Oil of rose geranium.....	1 dram.
Oil of bitter almond.....	30 minims.
Glycerite of starch.....	2 ounces.
Hamamelis water.....	enough to make 1 pint.

Dissolve the two acids in 8 ounces of hamamelis water; macerate the quince seed in this solution for 3 hours; and strain. Beat up the glycerite with the glycerin; and gradually incorporate with constant beating the quince seed solution. Finally beat in the oils dissolved in the alcohol, adding the solution slowly; and add enough hamamelis water to make the required volume.

Liquid Metal Polishes.

The appended formulas are from the *Pharmaceutical Journal*:

I.

Levigated silix.....	10 pounds.
Kerosene	5 gallons.
Oleic acid.....	2 gallons.
Stearic acid.....	2 pounds.

II.

Kieselguhr	56 pounds.
Kerosene	30 pounds.
Alcohol	20 pounds.
Oil of turpentine.....	5 pounds.
Ammonia water (sp. gr. 0.910)...	$3\frac{3}{4}$ pounds.

Bag Blue.

Ultramarine	30 parts.
Sodium bicarbonate.....	20 parts.
Glucose	6 parts.

Mix the color and the sodium salt, and knead in the glucose.

This mass is to be pressed into balls and tied up in small squares of linen.

Abstracts

Test for Cocaine.

Seiter (*Am. Journ. Pharm.*) criticises the various tests for cocaine now in use, and puts forward the following as the most delicate: To 1 c.c. (mil) of cocaine solution add one drop of 25 per cent. sulphuric acid and 1 c.c. (mil) of saturated potassium permanganate solution. After allowing the liquid to stand some time, place a drop on a slide, adjust a cover glass, remove the excess of liquid and draw a drop of water under the glass by means of a piece of filter-paper placed on the opposite side. The slide is then to be examined under the microscope for the characteristic violet-red rectangular plates of cocaine permanganate. In this way the author has detected cocaine hydrochloride 1 in 3000. Other common natural alkaloids and cocaine substitutes, with the exception of *a*- and *b*-eucaine, when treated by the above test were instantly oxidized. The two eucaines reduce the permanganate very slowly. *a*-Eucaine yielded very small irregular masses of violet-red leafy crystals in 1 per cent. solutions. In high dilutions (1 in 6000) the crystals were better formed and resembled those of ammonium-magnesium phosphate. The limit for the formation of the *a*-eucaine permanganate crystals is 1 in 5000. *b*-Eucaine in 1 per cent. solutions yielded minute violet-red globules, which did not crystallize on standing, but gave no reaction when less was present. The crystals were examined under a magnification of eighty diameters in all cases, except the *a*-eucaine crystals, which required the use of a higher power.

Estimation of Chloral Hydrate.

Bourdet (*Journ. pharm. chim.*) calls attention to the fact that when the method of the Codex for the estimation of chloral hydrate is used, the distilled water employed must recently have been freed from carbon dioxide and cooled. Commercial distilled waters, obtained by continuous acting stills, contain appreciable quantities of carbon dioxide. Also a water which was free from the gas at the time of manufacture gradually absorbs the gas. If this proposed precaution is not taken, the method of the French Pharmacopœia gives values that are too high. At the same time, the author advocates the use of N/2 soda solution instead of the normal, and the time of contact of alkaline solution with the chloral solution should be reduced to a quarter of an hour. In this time, the action is complete and the decomposing action of the water on the chloral is in a measure reduced.

An Old Remedy for Hiccough.

Anent contributions on the treatment of hiccough to the *New York Medical Journal*, the editor writes that a popular and easily obtained remedy was overlooked. "Like the other remedies advised," he says, "it is not infallible, but occasionally it succeeds." It consists in the inhalation of carbon dioxide, always immediately procurable by squirting two or three ounces of any of the charged waters from the syphon into a glass and placing the latter under the sufferer's nose. After a series of deep inspirations the patient swallows the water. If this treatment happens to be a novelty to the patient, so much the better; the psychical effect is excellent.

Hypodermic Injections of Oxygen in Asphyxia.

Maissonet (*Journ. méd. chir.* through the *Practitioner*) has experimented in hypodermic injections of oxygen in asphyxia, first suggested by Raimond. He found that the relief obtained was remarkable, and considers the method greatly superior to inhalations. The patient from the beginning of the treatment feels better, and the respirations become longer. After disinfecting the skin of the outer surface of the thighs with tincture of iodine, a sterilized needle is pushed into the subcutaneous tissue, care being taken not to introduce the needle into a vein and thus cause gaseous embolism. A tube from an oxygen cylinder is then attached to the needle; into this tube there should be let in a piece of glass tubing containing a little sterile cotton wool to act as a filter. The gas is allowed to bubble gently under the skin for about twenty minutes, sufficient being allowed to pass to form a swelling similar to that set up by an injection of about 300 c.c. (mils) of normal saline solution. Light massage is then performed to assist in the diffusion of the gas and promote its absorption. No trouble has been known to follow an injection; there is no pain, and absorption is quickly effected.

Gangrene from Carbolic Acid Ointment.

To the many cases of gangrene and consequent loss of extremities from the application of carbolic acid (phenol) dressings Schussler and Stern (*Journ. Am. Med. Asso.*) add still another. The patient, a man, received a slight scratch on the finger. He applied a 5 per cent. phenol salve on a closed dressing, according to instructions given him by a druggist who sold the salve. A week later the finger was gangrenous from the distal end of the proximal phalanx to the root of the nail. The gangrene was dry and the finger was completely mummified and as hard as a stone. After treatment to separate the devitalized parts the finger was amputated. References to a large number of other cases were made in the CIRCULAR for last month, page 573.

Removing Plaster of Paris Dressings.

Stransky (*Sem. méd.*) says that notwithstanding the use of special instruments for the removal of plaster of paris dressings, the operation is often troublesome, and in the case of a recent fracture may cause injury. Methods of softening the plaster by water, either alone or with the addition of salt, are rarely successful, as the apparatus becomes coated with a layer of grease which prevents their action. The author has obtained satisfactory results by moistening the line of section with vinegar applied on a tampon of wool. After a minute the plaster will be found completely softened so that it may be easily divided with a pocket knife or ordinary scissors—a procedure easy for the surgeon and painless for the patient.

A Sanitary Improvement in the Water-Closet.

Hartung (*Münch. med. Woch.* through *Journ. Am. Med. Asso.*) discusses the insanitary feature of having the water-closet flushing apparatus operated by a handle or chain to be taken in the hand. He suggests that a knob or pedal worked by pressure of the foot would be far more sanitary and prevent much contamination.

Detection of Alcohol in the Presence of Acetone.

It is said that the most sensitive test for alcohol is potassium dichromate with sulphuric acid. The test is, however, of no value, when the liquid under examination contains aldehydes, ketones and many other substances. By replacing sulphuric with nitric acid, solutions which contain alcohols, aldehydes, glycerin, sugar, etc., give the bluish-green color at once, while aliphatic and aromatic ketones react only very slowly. Agulkon (*Bull. scienc. pharm.*) found a reagent prepared by dissolving 50 grammes of acid potassium sulphate in 50 c.c. (mils) of water containing 0.5 gramme of potassium dichromate very useful for detecting alcohol and aldehydes in the presence of ketones. Solutions boiled with the reagent give a green color when the former are present, but do not give any reaction when they contain acetone only. This reaction may also be used for distinguishing castor oil from olive oil, linseed oil and pea-nut oil, as only castor oil gives a distinct green color with the reagent.

Estimation of Chlorine in Organic Substances.

Warunis (*Chem. Zeit.*) recommends the following method for estimating chlorine in organic substances: 0.2 to 0.3 gramme of the finely powdered substance is intimately mixed with 10 grammes of powdered potassium hydroxide and 5 grammes of sodium peroxide, transferred to a crucible and covered with a suitable quantity of a mixture of potassium hydroxide and sodium peroxide (2 to 1). The crucible is then covered with a lid and heated in a drying oven at 75 to 80° C. until the mass begins to melt. The crucible is then heated over a flame until a uniform melt is formed, which is kept in the molten condition for a short time. The melt is then dissolved in cold water, the solution, after cooling, acidulated with nitric acid and the halogen determined in the usual way.

Nature of Verbascose.

Bourquelot and Beidel (*Journ. pharm. chim.* through *Pharm. Journ.*) say that verbascose, the sugar of the leaves of *verbascum thapsus*, has been shown to yield levulose, glucose, and galactose when hydrolyzed. It would appear, therefore, to be allied to stachyose, which furnishes the same hexoses on hydrolysis. But it is found that the hydrolysis of verbascose with invertin is very much slower than that of stachyose. The two sugars, therefore, are probably not isomers. This indicates that verbascose has a higher molecular weight than stachyose, just as stachyose and raffinose are known to differ, where the rate of inversion is also different.

Action of Nitric Acid on the Aloins.

Stenhouse and Tilden found that by the action of nitric acid on aloin, chrysaminic acid and picric acid are formed. Léger (*l'Union pharm.*) states, however, that these substances are only secondary products, the primary product obtained by the action of nitric acid on barbaloin or iso-barbaloin being tetranitro-aloeemodin. On prolonged action of nitric acid on this compound chrysaminic acid is formed, which is split up into trinitro-meta-oxybenzoic acid, which finally yields picric acid.

Estimation of Caffeine in Caffeine-Sodium Salicylate and Similar Products.

Caffeine is estimated in caffeine-sodium salicylate by the following method recommended by Lehmann and Mueller (*Apoth. Zeit.*): 1 gramme of the salt is dissolved in 5 c.c. (mils) of water, the solution mixed with 40 grammes of chloroform and 5 grammes of 15 per cent. caustic soda solution and the mixture shaken well for five minutes. After the addition of 0.5 gramme of tragacanth, the mixture is shaken again, allowed to clear and decanted; 35 grammes of the chloroform solution are then evaporated in a tared flask and dried at 100° C. to a constant weight.

Fraxin in Bush-Honeysuckle.

When a small piece of the stem or the root of *dier-villa lutea* (bush-honeysuckle) is macerated with a weak alkali, a solution results which is strongly fluorescent in reflected light. According to Charaux (*Journ. pharm. chim.*) this fluorescence is due to fraxin. The glucoside isolated from bush-honeysuckle was identical with that obtained from European ash. In addition to fraxin, the author succeeded in isolating another substance, which, when purified, occurs as an amorphous white powder giving a violet-red color with concentrated sulphuric acid. By hydrolysis with diluted mineral acids it was split up into a water-insoluble substance and a reducing sugar. The glucoside seems to belong to the saponins.

Detection of Arsenic Acid in the Presence of Phosphoric Acid.

According to Maderno (*Att. R. Accad. Sci.* through *Schweiz. Woch.*) if a solution of the mixed alkali salts of arsenic acid and phosphoric acid is made slightly acid with acetic acid and, after adding 10 to 15 c.c. (mils) of a concentrated solution of ammonium nitrate, is heated to boiling, the addition of 1 gramme of ammonium molybdate and further boiling for one and one-half minutes will produce a white precipitate if arsenic acid is present. The reaction is said to indicate the presence of 0.002 gramme of arsenic acid in a large amount of phosphoric acid.

Is Pellagra Caused by Rancid Fat?

Pixley (*Am. Journ. Clin. Med.*) reports six cases observations of which suggest that rancid fats may be the cause of pellagra. Corn and bacon were the chief articles of diet of those affected. "The cure of pellagra," says the author, "when it is regarded as the final stage of processes in the body due to chronic intoxication by rancid fats, is easy, but the consideration of resulting degenerations of liver, pancreas, heart, brain, and spinal cord, in long-standing cases, is another proposition."

Ozonin.

Ozonin, used for bleaching purposes, is prepared according to the *Pharmaceutische Post.* by dissolving 125 parts of rosin in 200 parts of oil of turpentine. This solution is mixed with a solution of 25 parts of potassium hydroxide in 40 parts of water and then with 90 parts of hydrogen dioxide solution. The jelly, thus obtained, becomes liquid when exposed to the light for a few days.

Poisoning by Melted Copper.

Hansen (*Metal. and Chem. Eng.*) reports a case of poisoning by melted copper. Five thousands pounds of electrolytic copper scrap—uncontaminated except for a small amount of admixed iron—were melted in a 3-phase arc furnace of the ordinary steel-furnace type, the experiment lasting some five hours. A few hours after pouring off all of the ten men in the furnace building suffered inconvenience in breathing. For the twenty-four ensuing hours severe nausea was experienced in each case, and a soreness throughout the entire system similar to that of acute grippe. Since in all other respects the run resembled an ordinary steel run, the trouble is attributed to copper which was shown to be present in the furnace fumes. The temperature of the copper bath as a whole at no time exceeded 1300°C. , so that probably the copper was volatilized only at points directly beneath the electrodes. From the severity of the attack, coupled with the short time the men were exposed to the fumes, and that in a building which was well ventilated, the author is of opinion that very serious results might obtain under less favorable conditions. In five years of continuous research work on a large scale with furnace processes which involved, among others, tellurium, tellurides, arsenic, arsenides, zinc and sulphite ores, the only physical inconvenience suffered has been an occasional carbon monoxide headache.

Vitality of Cholera Bacilli in Sea-Water.

The *Revista de Sanidad Civil* gives the following report by Jacobson on the vitality of cholera bacilli in sea-water. During the last cholera epidemic in St. Petersburg the water of the river Neva was contaminated to such a degree that it was feared that the towns on the coast near the mouth of the river might come into grave danger of being infected, as the author had found by numerous experiments that cholera bacilli can live in sea-water for forty-seven days. Jacobson further points out that such contaminated sea-water should never be used as ballast for vessels on account of the danger for the port of destination and the impossibility of thoroughly disinfecting such large quantities of water.

Oil of "False Camphor."

The essential oil of the "false camphor" tree a plant of unknown origin, has been examined by Semmler and Zaar (*Berichte*). It is a light yellow liquid, has the specific gravity 0.958 and is soluble in 2.5 volumes of 70 per cent. alcohol. It contains in addition to *d*-limonene and cineol a monocyclic aldehyde $\text{C}_{10}\text{H}_{14}\text{O}$, which is identical with *d*-perillic aldehyde. Besides this aldehyde, a di-cyclic aldehyde could be separated, which is identical with nyrtetral, a compound which has never before been isolated from an ethereal oil.

Reactions of Iodoform.

On adding to a solution of iodoform in a large excess of chloroform a crystal of lead nitrite a red color is produced at once in the mixture according to Oeschne de Comiak (*Journ. pharm. chim.*). When chloroform is replaced by bromoform no red color is produced by lead nitrite in the cold; on warming, however, the mixture acquires a wine-red color, which turns to garnet-red and finally to red-brown.

Electricity in Wood Alcohol Blindness.

Ziegler, in a paper read before the Medical Society of Pennsylvania, reports a case of wood alcohol blindness in which much improvement had followed treatment by "negative galvanism." There was a history of sudden total blindness following the use of a beverage which, as indicated by this symptom, contained wood alcohol. Loss of vision was total and had remained so for two weeks. The patient was given small doses of thyroid extract for its alterative and eliminating effects, and negative galvanism recommended, the trial to continue for a month. From failure to observe any result, the author was about to dismiss the case, when a slight response to the test for vision encouraged him to continue. After nine months' treatment vision had been improved to two-fifths of normal, and improvement was increasing at the time of the report.

Different Kinds of "Scarlet Red."

It is stated in *Merck's Report* that a number of cases have been reported in which the dye scarlet red has been dispensed when the physician had intended to prescribe the medicinal Biebrich scarlet R. "Chemically," says the *Report*, "the dye scarlet red is the sodium salt of amidoazobenzeneazobetanaphtholdisulphonic acid and is quite distinct from the Biebrich scarlet red medicinal, occasionally called fat ponceau and known chemically as amidoazotolueneazobetanaphthol. It would be well, therefore, for the physician always carefully to specify 'Biebrich scarlet red, medicinal.'"

Estimation of Ozone.

Ozone is generally estimated by conducting the mixture of gases under examination through neutral potassium iodide solution and titrating the liberated iodine with thiosulphate solution. Lechner (*Zeit. Electrochem.* through *Chem. Zeit.*) found that when this process is employed small amounts of iodine are carried away by the current, necessitating the use of absorption flasks. When the gas is conducted through an alkaline iodine solution, the iodine is converted into iodate, from which it can easily be liberated by acidifying and titrated in the usual way.

Value of Long-Continued Artificial Respiration.

Inglis has reported in the *Lancet* a case of recovery from aconite poisoning in which in addition to the customary antidotal treatment, artificial respiration was kept up unceasingly for six hours. The patient had accidentally taken a quantity of aconite liniment roughly estimated as sufficient to kill six persons; so it seems to us proper to give much credit for the recovery to the persistence in artificial respiration.

Meliatin, a Glucoside in Buckbean Leaves.

Meliatin, a glucoside isolated by Bridel (*Compt. rend.*) from buckbean leaves, occurs as colorless and tasteless crystals, with a bitter taste. It possesses the formula $\text{C}_{15}\text{H}_{22}\text{O}_9$, melts at 222°C. , and has a specific rotation of $81^{\circ}96$. It does not reduce Fehling's solution and is not precipitated by gallic acid or tannic acid. Emulsin splits up the glucoside into a substance of the formula $\text{C}_9\text{H}_{12}\text{O}_7$ and *d*-glucose.

The Modern Materia Medica.

Aponal, a new hypnotic, is prepared by the action of urea hydrochloride on amylene hydrate.

Brand liniment (liniment for burns), Dr. Muench, contain boric acid, solution of aluminum acetate, lime water and liquid vasenol.

Bromoplast is the name for a zinc caoutchouc plaster.

Brom-Somnisan is *somnissan* (a percolate of valerian) containing 10 per cent. of Erlemeyer's mixture of bromides.

Buffle's Eye Wash seems to be fennel water.

Chinatrocine Asthma Spray is said to contain the fluidextracts of coca, belladonna, cannabis, stramonium, grindelia, and snake weed, and potassium nitrate and cherry laurel water.

Chloralum is the name for a solution of aluminum chloride.

Crolas is a name for a "tasteless" castor oil.

Diguajakol is methylene diguaiacol.

Dominique-Dufour's Hair color contains considerable quantities of para-phenylene diamine the application of which is likely to cause severe dermatitis.

Eucadol occurs as a thick liquid, resembling beechwood tar, but possessing only slight aromatic odor.

Eunalin is the name for a product prepared from suprarenal glands.

Glutannin is a combination of vegetable albumin and tannic acid. It is marketed in the form of tablets and as powder.

Guipsine is the name for lozenges containing the "active principles" of mistletoe.

Hyccyan is the name of tablets of mercury cyanide.

Hymosa, exploited for the treatment of rheumatism, is said to contain salicylic acid, sodium salicylate, potassium iodide, extractive matter and alcohol.

Iodocitin is the name for tablets containing iodine "organically combined with lecithin and albuminoidal substances."

Kalmopyrin, advertised as a remedy for neuralgia, rheumatism, etc., and as a general antipyretic is described as "calcium acetyl-salicylate." It occurs as a white non-hygroscopic odorless powder which is easily soluble in water. Solutions of this salt should be freshly prepared as they are liable to undergo rapid decomposition.

Kranit pastillen is the name for pastilles said to contain "metaloidal" phosphorus.

Kreosolid, a substitute for creosote, can be considered as the magnesium salt of the diatomic phenols of creosote.

Lain is an ointment containing zinc oxide and naphthalin.

Lazarol is said to contain acetic acid, acetic ether, ethereal oil, glycerin, quinosol, alcohol and water.

Lecicarnin is said to contain lecithin, albumin and meat juice.

Lecithonil is a lecithin elixir, the precise composition of which has not been made public.

Lupina Powder, advertised as a remedy for hyperacidity of the stomach, is said to be a mixture of extract of condurango, citric acid, pepsin, magnesium oxide, magnesium dioxide, cane sugar, milk sugar, starch, and menthol.

Maculanin is said to be potassium amylate.

Medol is a creolin liniment for veterinary purposes.

Nervan is the name for tablets containing pyramidon and caffeine citrate.

Neurocine Prunier, put forward as a remedy for general debility, anemia, phosphaturia, etc., is calcium glycerophosphate.

Orthonal, a new local anesthetic, is said to contain cocaine, alypin and adrenalin in physiological salt solution.

Pancril is a combination of enzymes said to be capable of digesting starchy, fatty and albuminous food. It is supplied in the form of chocolate-coated tablets.

Parfueseptol is a disinfectant containing phenol and naphthalin-like products.

Perulin is the name for an ointment said to contain zinc oxide, paraffin, Japan wax, Peru balsam, lead acetate, phenol and wool-fat.

Purgolax is the name given to fruit pastilles containing phenolphthalein.

Reihseur Ointment Sticks consist of cacao butter, petrolatum and tannic acid.

Silva Tea No. 1 is said to consist of oak bark, and **Silva Tea No. 2** is said to contain bean leaves, fumatory, red chick weed, snake root, calamus, liverwort, dandelion, orange leaves, couch grass, yarrow, centaury, walnut leaves, horse-tail rush, chicory and oak bark.

Thyreath Tablets contain an extract of the thyroid glands of the calf.

Thyrochrom is an alcoholic extract of the thyroid gland of the calf. It is said to be an improvement on the thyroid preparations at present in use.

Turiopin for the treatment of catarrh of the throat, etc., is an alcoholic extract of the sprouts of pines, evaporated in vacuo.

Tussiva, exploited as a remedy for cough and catarrh of the throat, is said to contain in addition to sugar, glycerin, ammoniated spirit of anise and emulsion of almond oil, a fluidextract prepared from chestnut leaves, marshmallow root, ipecac, pimpinella and senega.

Util, for the treatment of herpes, is a suspension of yellow wax in alcohol. It is perfumed with musk.

Valyfen is the isovalerianic acid ester of fenchyl alcohol.

Vao-Fotsy Tea, for the treatment of febris biliosa and hemaglobinuria, is said to consist of the "leaves of *aphloia theaeformis*, a Madagascan tree."

Varalletes Bishop are effervescent tablets containing antipyrin, lithium citrate, peperazin, sodium bromide, etc.

Vin Urane (Pesqui) is a wine containing uranium nitrate, exploited as a remedy for diabetes.

Westrosol, is another name for trichlorethylene.

Notes and Queries.

NOTICE.—It is desirable that all questions to be answered under this head should be received before the fifteenth of the month and they must be accompanied with the name and address of the writer.

Queries are not answered by letter. The information supplied in these columns is intended for the benefit of our readers in general, not for the profit of the individual inquirer only.

Saturated Solution of Boric Acid.—E. H., Massachusetts, writes: "Please tell me how boric acid you would use to make a 4-ounce saturated solution and how much it should measure?" With the exception of the omission of the word "much" between "how" and "boric," and its failure to indicate what the solvent is to be, or the temperature of that solvent, and the doubt as what kind of ounce is meant, this query is a very plain one indeed. But we can supply the "much," guess that U. S. P. water at 25° C. is the solvent to be used, and deduce from the context that some kind of an ounce by weight is meant, and then go ahead. Just for a starter we shall assume that the ounce is of the troy or apothecaries' variety, and therefore is the equivalent of 480 grains.

These comments are not made for the purpose of humiliating our querist, who is nameless here, but in order to emphasize the kind of thing that a query editor continually finds himself "up against."

By referring to the Pharmacopœia we find that boric acid is soluble in 18 parts of water at the stated temperature. Then, by a very simple arithmetical calculation we ascertain that if 1 part of boric acid and 18 parts of water, making a total of 19 parts, weigh 480 grains, then the 1 part of boric acid weighs approximately $25\frac{1}{4}$ grains, and the 18 parts of water weighs approximately $454\frac{3}{4}$ grains.

Just how much this solution would measure can be ascertained only by measuring it. By referring again to the Pharmacopœia we find that $454\frac{3}{4}$ grains of water measures 1 fluid ounce. This being the case, the $454\frac{3}{4}$ grains used to dissolve the boric acid would measure almost exactly the same. We do not know how much this volume would be increased by the addition of $25\frac{1}{4}$ grains of boric acid: as we have just said, the way to find out is to measure it. A note on the mathematics of solution in last month's CIRCULAR, page 569, may prove of some interest in this connection.

Books on Pharmacy.—McG., Vermont.—The book you have in mind is Principles of Pharmacy, by Prof. H. V. Arny, published by W. B. Saunders Company, Philadelphia, price \$5. Other works of a somewhat similar nature are the Practice of Pharmacy, by Prof. J. P. Remington, published by the J. B. Lippincott Company, Philadelphia, price \$6; and a Treatise on Pharmacy, by Prof. Charles Caspari, Jr., published by Lea & Febiger, Philadelphia, price \$4.25. Among the smaller books on the subject of pharmacy may be mentioned a Manual of Pharmacy and Dispensing, by Prof. A. B. Stevens, Lea & Febiger, \$2.50; a Compend of Pharmacy, by Dr. F. E. Stewart, P. Blakiston's Son & Co., Philadelphia, \$1; and Prescription Practice and General Dispensing, by Prof. J. H. Beal, Scio, Ohio, \$1.50. The Art of Compounding, by Prof. W. L. Scoville, published by the Blakistons at \$2.50, is a book of a nature somewhat different from that of the treatises on pharmacy men-

tioned and is supplementary to any of them. No matter which of the other books he has, no dispenser can afford to try to do without this one. A similar work designed for British pharmacists is the Art of Dispensing, which is imported by McKesson & Robbins, of this city.

Solution of Magnesium Citrate that Will Keep.—Z. A. H., Ohio.—Perhaps more ink has been shed over this preparation than any other in the Pharmacopœia. It became official in 1850, and every time the Pharmacopœia has been revised since then some change has been made in its formula.

To prepare a solution "so that it will keep for at least a week" instead of getting sour and showing a scum, as you say yours does, should not be a difficult task. In a paper read at the 1910 meeting of the American Pharmaceutical Association, J. K. Thum, of Philadelphia, stated that he considered the question of the deterioration of this preparation to be a bacteriological one, and told how he sterilized his materials and bottles by the use of boiling water. His directions for carrying out the process appear in the CIRCULAR for February, page 80. In the issue for January, 1909, page 24, R. P. Daniel, of Texas, outlined a similar process which enabled him to keep the solution for upwards of two months.

A time-saving way of making the solution is described by F. E. Dudman in the CIRCULAR for August, 1908, page 380, and several notes on preparing it, with especial reference to using a filtering process, by various contributors appear in the issue for April, page 311; May, page 367; and June, page 417, all for 1907. Perhaps one of the most exhaustive studies of the question which has been published in the CIRCULAR is that by the late Luther F. Stevens. This appears in the issue for November, 1889, page 245, and an abstract of it may be seen in the number for August, 1906, page 190.

One of our contributors who has a large trade in this solution says that it should be made up twice a week and all old stock on hand destroyed when the new is made.

Meaning of "aa. q.s. ad."—H. R. D., New York, disagrees with us as to the meaning of "of each" as expressed in a note headed "A Question of Liquidity" in the CIRCULAR for last month, page 565. The portion of the prescription which gave rise to the statement with which our correspondent disagrees, reads: "Aq. rosæ, liq. calcis, aa. q.s. ad $\bar{z}$ ij." We said that a strict construction of the direction would lead to the dispensing of a 6-ounce mixture, although we added that what the prescriber probably intended was a 3-ounce mixture. We based our statement on the literal meaning of the words, that is to say "take of each" of two liquids, "enough to make 3 ounces." "Of each, enough to make 3 ounces" means of rose water enough to make 3 ounces, and of lime water enough to make 3 ounces, which would be 6 ounces, unless, since we are so technical, a deduction is made for the amount of space that is occupied by the solids when we measure the second 3 ounces.

Egg Substitutes.—R. M. G., Maryland.—These, we believe, consist principally of starch, colored yellow, and, like other fakes, are a good thing for druggists to advise their customers to steer clear of.

Rolling Skin Cream.—H. K. C., Maryland, wants a formula for a "rolling out" massage cream similar to a well-known preparation on the market, but stipulates that he does not want a "formula made from milk, as it is too much trouble to make it in that way." We believe the well-known cream in question contains a milk product, and we further believe that to make an equally good one of the same type any other manufacturer must go to as much trouble as does the original maker. However, if he does not wish to use milk in the process of obtaining casein, our querist might buy his casein ready made, and then adapt the following formula to his purpose:

Casein (moist).....	3 ounces.
Boric acid.....	5 drams.
Cacao butter.....	2½ drams.
Carmin solution.....	enough.
Perfume	enough.

A formula of a different type, in which casein is not called for, is given below:

Stearic acid.....	20 parts.
Distilled witchhazel water.....	100 parts.
Sodium carbonate.....	3 parts.
Water, enough to make.....	200 parts.
Glycerin	3 parts.

Melt the stearic acid on a water bath; dissolve the sodium carbonate and glycerin in 60 parts of water and add gradually to the stearic acid; heat for about an hour with stirring from time to time. Then weigh and add water to make 100 parts. Heat for about a minute or until smooth, and add the witchhazel water. Again heat for a few minutes until smooth and beat with a rotary egg beater until nearly cold.

"It is my impression that if the witchhazel water be soaked overnight with flaxseed until thickened and then strained that it would be an improvement," says a correspondent, who adds: "The glycerin might be omitted with advantage as one of the 'original greaseless creams' ('Made in Great Britain') bears a label on which appears, 'Warranted free from glycerine.' Glycerin does not mix well with the sodium stearate and only by vigorous beating can it be kept well mixed."

To replace glycerin in creams of this type, German authorities suggest a thin agar-agar jelly.

Hair Grower.—M. B., New York, asks for a formula for a hair tonic that will (1) make hair grow, (2) prevent the hair from falling out, and (3) make the hair glossy and soft. By giving him such a formula, he says, we will help him to earn his bread.

A man with a formula of that kind would not have to stop at bread, but could begin his dinner with anchovies and caviar and go through the entire seven, seventeen or fifty-seven courses, with a different wine for each course. We have not such a formula and do not know of any such preparation as our querist specifies.

Coloring White Celluloid Blue.—J. M. S., New York.—The best time to color celluloid is when it is in the making, but white celluloid articles may be dyed with anilin. For this purpose the experts in the establishment of H. A. Metz & Co. say that "spirit blue R" and "spirit blue green" are as well adapted as any anilins.

Rubber Cement.—J. H. L., New York.—Pieces of rubber may be united by means of the pasty mass obtained by dissolving pure rubber in ether, benzin, carbon disulphide, or oil of turpentine. However, it is difficult to dissolve rubber satisfactorily on a small scale, and dangerous to handle most of its solvents, and as the cement may be bought ready made at a low price, we do not advise promiscuous experiments in making it. Those who wish to try it will probably succeed best by cutting pure, unvulcanized rubber into very thin slices, boiling it in water so as to soften and expand it, and then digesting it in benzin or hot oil of turpentine. Several days are required to effect the solution. When this cement is used for uniting pieces of rubber, the surfaces which are to be joined must be fresh; they should therefore either be pared with a knife or rasped with a file. They may then be coated with the cement, pressed firmly together, and exposed to a gentle heat for a few days.

Here is another formula, or, perhaps better, a modification of the first one: Virgin rubber is cut with a wet knife into the thinnest possible slices, which are then divided by shears into threads as fine as small twine. A small quantity of the shreds (say 1/10 of the capacity of the bottle) is then put into a wide-mouthed bottle, and the latter is three-fourths filled with benzin of good quality, and perfectly free from kerosene. The rubber almost immediately commences to swell, and in a few days, if often shaken, it will assume the consistency of honey. Should it be inclined to remain in undissolved lumps, more benzin must be added. Thinness may be corrected by adding more rubber. A piece of solid rubber no larger than a walnut will make a pint of the cement. It dries in a few minutes, and, by using three coats in the usual manner, leather straps, patches, rubber soles, backs of books, etc., may be joined with great firmness.

Liquid Nail Polish.—H. L. S., California.—From a previous number of the CIRCULAR we copy the two formulas which follow, and trust one or the other of them, or perhaps a combination of the two, will aid you:

I.

White wax.....	1 ounce.
Cottonseed oil.....	2 ounces.
Carmin	5 grains.
Oil of rose.....	5 drops.

Melt the wax, add the oil, triturate the carmin to fine powder, mix intimately with the melted fats, and then incorporate the oil of rose.

II.

Eosin	10 grains.
White wax.....	½ dram.
Spermaceti	½ dram.
Soft paraffin.....	1 ounce.
Alcohol	enough.

Dissolve the eosin in as little alcohol as will suffice, melt the other ingredients together, add the solution and stir until cool.

Straw Hat Cleaners and Bleachers.—G. A., Massachusetts.—Directions for cleaning, bleaching and varnishing straw hats are given in the CIRCULAR for May, 1910, page 233.

Spirit Gum.—H. L. S., California.—This adjunct of the buskin and wig is as variously constituted as is the cream used in removing it from the face. In its simpler forms spirit gum is a (1) solution of mastic in ether; (2) a solution of mastic in alcohol; (3) a solution of sandarac in ether; (4) a solution of shellac in alcohol; (5) any one of these "gums" in any one of the solvents. First among the more complex spirit gums are solutions of two or more of the hereinbefore mentioned "gums" in one or another of the solvents referred to, or in combinations of both. Then come flexible collodion, and liquid court plaster. The most complicated formulas are something after the following:

I.	
Mastic	2 grammes.
Sandarac	4 grammes.
Rosin	12 grammes.
Ether	2 grammes.
Alcohol	16 grammes.

II.	
Rosin, pale.....	4 grammes.
Castor oil.....	1 gramme.
Alcohol	16 grammes.

III.	
Sandarac	2 grammes.
Shellac	1 gramme.
Mastic	1 gramme.
Elemi	4 grammes.
Venice turpentine.....	1 gramme.
Alcohol	20 c.c. (mils)
Ether	5 c.c. (mils)

Stamping Ink.—F. E. Y., Ontario.—We suggest that you might be able to make a satisfactory ink for use with steel dies by experimenting with some of the following formulas:

I.	
Oleic acid, purified.....	5 parts.
Castor oil.....	55 parts.
Oil-soluble anilin black.....	3 parts.

By using other anilins, red, blue, violet, etc., inks may be produced, although as the tinctorial power of some of these colors is greater than that of the black dye, suitable allowance must be made in deciding upon the proportions.

II.	
Dissolve 1 part of asphalt in 4 parts of oil of turpentine and add enough lampblack to bring the solution to the proper consistency.	

III.	
Copaiba	9 ounces.
Lampblack	3 ounces.
Indigo	3 drams.
Prussian blue.....	5 drams.
Indian red.....	¾ ounce.
Dried yellow soap.....	3 ounces.

IV.
Heat 100 parts of olein to 80° C. and dissolve in it 1 part of oil-soluble anilin black.

For additional information on this subject you should refer to the issues of the CIRCULAR for May, 1907, page 360, May, 1906, page 175, and June, 1906, page 210. A note in the issue for last September, page 478, may also prove of value in this connection.

Fluidextract of Cannabis Indica in an Aqueous Mixture.—B. B., Ohio, asks for a "working method for preparing the following formula," his difficulty being to get the "prescribed amount of cannabis indica to remain in solution":

Heroine hydrochloride.....	⅓ grain.
Tartar emetic.....	⅛ grain.
Fluidextract of cannabis indica....	7½ minims.
Fluidextract of lobelia.....	7½ minims.
Chloroform	4 minims.
Syrup of tolu.....	enough to make 1 ounce.

Our correspondent does not say whether or not this is a physician's prescription. To us it has the appearance of a physician's supply house label.

Pharmaceutically the mixture is a disgrace, and therapeutically it is dangerous, because sufficient of the tartar emetic to do harm in the last dose may be precipitated by the alcohol in the fluidextracts, and sedimentation may carry down a toxic dose of the alkaloidal salt. If the mixture is prescribed by a physician we should acquaint him with its harmfulness. If it is not a prescription we should not have anything to do with it, beyond pointing out to the one presenting it, its possibilities for doing harm.

Compound Syrup of Ipecac, French Codex.—S. P., Pennsylvania.—The official formula for sirop d'ipécacuanha composé is as follows:

Ipecac root, contused.....	30 grammes.
Senna leaves.....	100 grammes.
Wild thyme (thymus serpyllum)	30 grammes.
Red poppy flowers.....	125 grammes.
Magnesium sulphate.....	100 grammes.
White wine.....	750 grammes.
Orange flower water.....	750 grammes.
Boiling distilled water.....	3,000 grammes.
Sugar	enough.

Macerate the ipecac and the senna in the wine for twelve hours; squeeze through a straining cloth, and filter; to the residue, add the thyme and the poppy flowers; pour the boiling water over this mixture and allow it to stand for six hours; then squeeze it through a straining cloth. Dissolve in the liquid thus obtained the magnesium sulphate; add the orange-flower water, and filter. Mix with the vinous liquid. In the mixed liquids dissolve on a water bath, sugar in the proportion of 180 grammes to each 100 grammes of liquid. Strain.

Essence of Jamaica Rum.—C. R., New Jersey.—Ethyl butyrate is the principal aromatic constituent of Jamaica rum, and is used in simulating rum in flavoring comestibles and beverages.

However, the use of the artificial flavorings is scarcely to be condoned even on the ground that the natural flavoring is an intoxicating liquor. Usually the artificial concoction contains more alcohol than the natural, and the well-meaning but unenlightened users of the substitute who would not countenance the use of the natural rum are hoodwinking themselves. That other practice of disguising diluted alcohol with various essences for the purpose of palming it off as a distilled liquor is, in common with all other forms of out-and-out cheating, so reprehensible that no druggist worthy of the name has for it anything but outspoken condemnation.

Saratoga Ointment.—F. R. S., Iowa.—In reply to published requests for information concerning this preparation we have received from the Milo J. John Company, Iowa, the following formula, which it says is used by some of the physicians of Clinton, that State:

Powdered boric acid.....	30 grains.
Zinc oxide.....	60 grains.
Oil of eucalyptus.....	15 drops.
Petrolatum.....	enough to make 480 grains.

Cecil D. Cook, Ontario, writes that a large manufacturing concern of his acquaintance uses the formula which appears below:

Powdered boric acid.....	5 drams.
Zinc oxide.....	10 drams.
White petrolatum.....	4 pounds.
White wax.....	1 ounce.
Spermaceti.....	1 ounce.
Eucalyptol.....	2 ounces.

Melt the wax, spermaceti and petrolatum together, and as it cools, sift in the zinc oxide and boric acid, using a No. 90 sieve. Finally, add the eucalyptol as the mass becomes cooler, and stir until it sets.

An old Pennsylvania friend who expresses his belief in the reciprocal principle, and requests that his name be not used, says that "the secret of successful ointment-making lies as much in the mechanical details as in the careful choice and proportion of the ingredients." He adds that "to attain smoothness it is quite essential that the product be carefully milled." Ointment mills of various sizes are on the market. As a formula he suggests the following:

White petrolatum.....	40 pounds.
Paraffin (120° m. p.).....	2 pounds.
Zinc oxide (pure).....	5 pounds.
Boric acid.....	5 pounds.
Eucalyptol.....	4 fl. ozs.

Melt the petrolatum and the paraffin together, sift in the powders, stir well together and add the eucalyptol. Allow to congeal, and mill carefully.

The proportion of paraffin should be increased in warm weather.

We are also under obligations to Elias Shaller, New York; F. B. W., Massachusetts; and F. H. Webb, Ontario, for help in this connection, and to all our friends who manifest this give-and-take spirit we extend our thanks.

Making Compound Solution of Cresol.—F. B. W., Massachusetts, writes that he experiences no difficulty in producing a compound solution of cresol that will mix clear with water in any proportion. He describes his process as follows:

I warm the linseed oil in a capacious casserole or a deep earthen jar, placed in a water bath, add the potassium hydroxide, and mix thoroughly; next add 30 c.c. (mils) of alcohol for each 1000 grammes, mix thoroughly and continue the heat without further stirring until the oil is saponified; this is determined by the absence of oily drops when a little of it is mixed in hot water, in a test tube. By this time all the alcohol has evaporated and a perfect soap is formed. Then I add the cresol gradually and enough water to make the required quantity. When made in this way the preparation will mix with water in all proportions, making perfectly clear solutions.

We thank our correspondent for his note and should be glad to publish his name, but for the fact that he has indicated a desire to remain anonymous.

Almond Creams and Lotions.—M. B., New Jersey.—We do not know the composition of the proprietary article you mention, but quite a number of formulas for preparations of this class appear in back numbers of the CIRCULAR, as anyone may see for himself by using the monthly and annual indexes. Herewith we reprint one of these formulas:

Honey and Almond Lotion.

Ointment of rose water (U. S. P. 1900).....	25 grammes.
Glycerin.....	25 c.c. (mils).
Expressed oil of almonds....	25 c.c. (mils).
Solution of sodium hydroxide (U. S. P.).....	60 c.c. (mils).
Mucilage of quince seed (1 to 64).....	125 c.c. (mils).
Oil of bitter almonds, essential, and oil of rose.....	enough to perfume.
Water.....	enough to make 1,000 c.c. (mils).

Triturate in a cold mortar the ointment of rose water, the expressed oil of almonds and the solution of sodium hydroxide until a smooth emulsion is obtained. Add the mucilage in divided portions, with constant trituration; likewise add the glycerin, and, continuing the trituration, 500 c.c. (mils) of water. Transfer the mixture to a bottle, add the perfume and enough water to make 1,000 c. c. (mils), and shake thoroughly.

In order to make the preparation true to label honey may be used in place of some of or all the glycerin.

Perhaps by replacing a small part of the almond oil with castor oil, a somewhat pearly appearance may be obtained.

Venice Lime.—In further answer to B. E., New York, P. K. Hildmann, New York, favors us with the following note:

In regard to the article on "Venice Lime," in the CIRCULAR for October, page 568, I beg to add a little more light. There is no doubt that your New York friend, B. E., had received numerous calls for "Wiener kalk," particularly from his German customers. This article is a mineral obtained chiefly in the province of Kieder-Oesterreich, lower Austria, with the city of Vienna, or Wien in German, as its capital. Chemically it consists mainly of calcium carbonates and magnesia, and after being burned or dried, the pulverous form is marketed under the name of Wiener kalk (Vienna lime), and is used as a polish.

In satisfying the demand of my customers for Wiener kalk I believe myself to be right in supplying them with bolted gilder's whiting, and I have never had any dissatisfaction.

We are under obligations to Friend Hildmann for this note, and trust that he, and all others who like him may be able to help us in answering queries, will write to us as often as occasion arises. This is a give-and-take department, and we wish that everyone who takes anything from it would give something to it.

Compound Syrup of White Pine with Tar.—F. A. L., Florida.—Compound syrup of white pine is an official preparation, the formula for which may be found in the National Formulary. Glycerite of tar is another N. F. preparation, and may be added to the compound syrup in the proportion necessary to make the mixture represent the dose of tar desired by the prescriber.

Saponified Phenol Disinfectant.—E. T. G., Michigan.—The United States department of agriculture issued several years ago a booklet on the "Animal Parasites of Sheep," in which are given formulas for various liquids to be used as sheep-dips, including coal-tar preparations of the nature desired by you. Doubtless a copy of this booklet may be obtained from the secretary of agriculture. In the CIRCULAR for April, 1904, page 84, is to be found an article based upon this booklet. The formula for one of the coal-tar dips was reprinted in the CIRCULAR for May, 1909, page 242, and is as follows:

Soap	1 pound.
Crude carbolic acid.....	1 pint.
Water	50 gallons.

Dissolve the soap in a gallon or more of boiling water, add the acid, and stir thoroughly. Finally add the remainder of the water.

The following formula has been approved by the British imperial board of agriculture:

Liquefied phenol (97 per cent.)..	60 ounces.
Good soft soap.....	5 pounds.
Water.....	enough to make 100 gallons.

Dissolve the soap in the phenol with the aid of a gentle heat, and mix with enough water to make 100 imperial gallons.

Here is another formula from a British source:

Zundel's Carbolic Dip.

Crude carbolic acid.....	2 pounds.
Caustic lime.....	2 pounds.
Caustic potash.....	2 pounds.
Soft soap.....	6 pounds.
Water	70 gallons.

About Basham's Mixture.—C. T. Heseltine, Maine, supplements the note on preparing Basham's mixture by J. J. Davies, appearing on page 568 of last month's CIRCULAR with the following:

For Basham's mixture I use 8-ounce glass-stoppered perfume bottles containing the several ingredients separately, and keep them together so that no time is wasted traveling around the store; and I also have the fresh preparation at once.

We appreciate this opportunity of thanking Mr. Heseltine for his fraternalism, and hope that he will frequently lend aid to his fellow-pharmacists through these columns.

In passing we are led to remark that short-cuts in the making of Basham's mixture have all too frequently in our experience resulted in the return of the mixture with a precipitate. We are inclined to distrust the stability of ammonium carbonate as such or in solution; and our method of getting around the uncertain alkalinity of this salt which is usually responsible for the rapid deterioration of the mixture is to add enough ammonium carbonate to the diluted acetic acid mixed with sufficient water to make 500 c.c. (mils) (in the official quantity) to make the solution neutral to litmus; and then add a drop or two of the diluted acid. Basham's mixture made in this way has, as an experiment, been known to stand on a drug-store shelf in a loosely cork-stoppered bottle for several months without losing any of its transparency or forming any precipitate. It may take a few minutes longer to fill a prescription for liquor ferri et ammonii acetici by our method, but, once filled, it may be forgotten for it never comes back full of "brick dust."

Culinary Gelatin.—P. A., New York, writes: "I should be pleased to find how the various gelatins on the market are made more easily and quickly soluble. Also how they are flavored."

We take it that P. A. has reference to the so-called "jelly powders" which are not entirely composed of gelatin, the following being a typical formula:

Powdered gelatin.....	2 parts.
Powdered sugar.....	7 parts.
Powdered tartaric acid.....	1 part.
Oil of lemon.....	enough.

It is quite plain that the solubility of such a mixture will be greater than the solubility of an equal bulk of gelatin. Market varieties of gelatin are not all equally soluble and to secure a soluble sort it is necessary so to specify on orders—and then to prove it with a sample of the lot obtained.

The various flavors are imparted to the powders by means of essential oils or "fruit ethers." The flavoring material is first triturated with the powdered sugar.

Test for Bile in Urine.—J. H. S., New Hampshire.—The presence of bile in the urine is usually determined by a test for bile pigments. The most common of these tests is Gmelin's which consists in carefully overlaying a sample of the urine in a test tube with a little nitric acid to which has been added a trace of nitrous acid. By this test there is obtained at the juncture of the two liquids a series of colored layers in the following order from above downward: green, blue, violet, red, and reddish-yellow. For the test to be positive the green ring must be present and also the red, and at the same time. The reagent must not contain too great a proportion of nitrous acid, neither must there be any alcohol in the liquid. Gmelin's test is very sensitive, indicating the presence of 1 part of bilirubin in 800,000 parts of liquid.

Hammarsten says that Rosenbach's modification of Gmelin's test is simpler and more sensitive than the original. In applying this test the urine is filtered through a small white filter paper; and, when all has passed through, a drop of Gmelin's reagent is applied to the inside surface of the filter. A pale-yellow spot is formed which, if bilirubin is present, is surrounded by colored rings which appear yellowish-red, violet, blue, and green, from within outward.

For dark-colored urines or those containing indican or blood pigments, Hammarsten recommends Huppert's test. This consists in treating the urine first with solution of calcium chloride, and then with solution of sodium carbonate; collecting the precipitate on a filter; washing the precipitate with distilled water; dissolving it in alcohol containing 5 per cent. of concentrated hydrochloric acid; and heating this solution to boiling. A green or bluish-green color denotes the presence of bilirubin.

Cresol Disinfectant.—R. M. G., Maryland.—We do not know the formula of tarola, but suggest that you look over the Pharmacopœia and National Formulary, in which appear formulas for various cresol preparations; and you might well read the note on phenol disinfectants in the adjoining column.

Tasteless Compound Syrup of Cinchona.—F. A. L., Florida.—Hager gives the following formula for a syrup of cinchona which is really a compound syrup and, if not tasteless, at least has an agreeable savor:

Cinchona	4 parts.
Cinnamon	1 part.
Red wine.....	24 parts.
Sugar	32 parts.

The drugs, ground to the proper degree of fineness, are macerated in the wine for eight days; the liquid is strained off and filtered; and the sugar is dissolved in the filtrate.

The usual "tasteless syrup of quinine" is a preparation of quinidine, the National Formulary formula for syrup of quinidine being typical. In the issues of the CIRCULAR for April, 1910, page 171, and for January, 1910, page 23, are formulas for syrups for disguising the taste of quinine. These may be adapted as vehicles for mixtures of cinchona alkaloids.

Making Emulsions.—W. E. B., Maine, writes: "In making emulsions, say of castor oil, why is the water added all at once? In adding it slowly would it not emulsify as well?"

Emulsions depend upon two characteristics of liquids—surface tension and colloidal conditions. Density is also a factor, but has much less influence than either of the other two. In the case of oils and water, the oils have a much less surface tension than water, hence the globules of oil coalesce and refuse to emulsify until the surface tension of the water is reduced. Emulsifying agents, then, are bodies which reduce the surface tension of water without too greatly changing (or increasing) its density. Colloidal bodies possess this property in great degree, hence soaps or saponins, gums or mucilages and albuminous bodies rank (in about the order named) as the best or most potent emulsifying agents. But all colloidal bodies possess this property in a marked degree, and even insoluble colloids, as ferric hydroxide, copper hydroxide, calcium hydroxide, or any very fine or colloidal precipitate or body will act as an emulsifying agent. We have an illustration of these in kerosene emulsions, Bordeaux mixture, etc. And it is also true that weak solutions of crystalline salts, of alcohol or of other substances, which reduce the surface tension of water, also act, in a limited way, as emulsifying agents, whenever these do not unite chemically with the oils and thus restore the surface tension of the water.

Strong solutions of these soluble substances may act as dehydrating agents, or in other ways interfere with the emulsifying properties, and so will even break an emulsion already formed. Yet the fact remains, that weak solutions of these crystalline and soluble substances, whenever they reduce the surface tension of bodies, aid in forming as well as in maintaining emulsions.

Now, in pharmacy, considerations of therapeutic action, convenience, permanence and palatability all favor gums or albuminoid bodies as emulsifying agents, hence these are generally used. In using solutions of these—as mucilages, milk, eggs, etc.—it is found that emulsions form more easily when the oil is incorporated with strong solutions, since the enveloping of the oil globules in a membrane of colloidal solution is a second important factor in emulsions. Emulsions so formed are readily diluted and

the process is easier than if the diluted emulsion is attempted at one operation. Very strong emulsions can be made in this way—containing 60% to 90% of oil by volume.

In the case of dry gum (powdered), since acacia is soluble in about twice its weight of water, this proportion is found to work most easily in practice. Hence the Continental rule of oil 4, water 2, gum 1 (or its American modification of oil 4, water 1½, gum 1) is simply a rule of convenience. Just why a close adherence to these proportions makes a considerable difference in case of manipulation is not thoroughly understood, but that adherence is not positively necessary, is a fact. One can double or treble or even quadruple the proportion of water and still secure an emulsion with increasing difficulty and expenditure of time in manipulation, but still with comparative ease. In fact it is impossible to place any limits to the proportions in which an emulsion may be formed. In practice, the limits are set by considerations of time and effort, hence the simplest answer to your question is that the Continental rule is the most rapidly and easily followed, but that an equally good emulsion may be made by almost any method of mixing, provided a proper amount of skill and patience be used.

Olive Oil Soap of the Spanish Pharmacopœia.—C. H., Ohio.—In the issue of the CIRCULAR, for February, 1910, page 67, the following appears as a part of a note on the making of this article:

In the Spanish Pharmacopœia is a process for making olive oil soap, which is designed for the use of pharmacists. This follows:

Sodium hydroxide.....	18 grammes.
Sodium chloride.....	30 grammes.
Olive oil.....	100 grammes.
Distilled water.....	enough.

Dissolve the sodium hydroxide in 100 grammes of distilled water, mix the solution with the oil and heat moderately, without stirring, replacing the water lost by evaporation, for two hours or longer until saponification is complete. Add 300 grammes of distilled water and continue the heating until the soap is dissolved; stir in a solution of the sodium chloride in 100 grammes of water, and heat the mixture until the glycerin has separated. Set aside until the next day; separate the soap from the liquid; cut it into pieces; wash off with a jet of cold water and dry between absorbent paper.

Mist. R. & S. Co., Bellevue Hospital.—M. T., New York.—By turning to the Hospital Formulary of the Department of Public Charities and the Department of Bellevue and Allied Hospitals of the City of New York, which is a small book notwithstanding its title, we find the following formula:

Mistura Rhei et Sodæ Comp.
Comp. Rhubarb and Soda Mixture.

Sodii bicarb.....	gr. 160
Ext. ipecacuanæ fl.....	℥ 8
Ext. rhei fl.....	℥ 60
Tinct. nucis vomicæ.....	fl 3 3
Glycerin	3 4
Aquæ menthæ piperitæ.....	q.s. ad fl 3 4

It is there credited to the City Hospital.

We believe this to be the formula you require.

Artificial Apples for Jugglers' Use.—B. B., New York, writes: "Have been ordered by a juggler to prepare a round plastic mass the consistency and same characteristics of an apple, so as he can juggle same, and while the mass is in midair, cut same with a knife and catch both halves on a fork."

"Have tried numerous compounds and find that the best is—

Arrowroot 4 ounces.
Potassium hydroxide..... ½ dram.
Glycerin and gelatin..... enough to mass.

"The above preparation would be all right were it not for the fact that, when cut, the both halves are brittle around the edges and break off when caught on a fork.

"Kindly advise as to a better formula."

Not knowing what are embraced in the "numerous compounds" with which B. B. has experimented we hesitate to suggest a "better formula." Nevertheless we shall hazard the suggestion that the official glycerite of starch in which has been incorporated some white pigment made into a paste with glycerite of tragacanth, would probably be free from the objectionable tendency to harden and crumble.

On behalf of our querist we ask such assistance as our readers may be in a position to extend.

Elixir of Creosote and Heroine.—C. A. J., Pennsylvania.—After ascertaining from the physician the amount of creosote and heroine he wishes to have exhibited in each dose of the elixir and the size of the desired dose you might reach success along the following lines:

Apply the rule of three to determine how much heroine and how much creosote would be present in a pint of elixir containing these drugs in the desired proportion, then use this formula:

Heroine the determined amount.
Creosote the determined amount.
Glycerin 8 ounces.
Fluidextract of wild cherry..... 1 ounce.
Compound spirit of orange..... 2 ounces.
Alcohol 4 ounces.
Distilled water..... 1 ounce.

Mix the alcohol and the compound spirit of orange; dissolve the heroine and the creosote in this liquid; add the fluidextract and the glycerin; shake well, and add the water.

Multiple Incompatibility.—H. L. S., California, writes as follows:

Please criticise the following prescription as to its compatibility:

R Na Br..... grs.x.
Liq. pot. ars..... gtts.x.
Ess. pancreatin
Ess. pepsin..... aa ʒss.
Syr. rhei ar..... ʒj.
Aq. q.s. ʒiij.

I drew the doctor's attention to (1) the pepsin and pancreatin destroying each other; (2) the alkali of rhubarb incompatible with the pepsin; (3) tannin in rhubarb precipitates pepsin; and (4) mixture precipitated heavily.

Although H. L. S. has attended pretty well to the criticism of the mixture's lack of compatibility, he might further have enlightened the prescriber—who evidently needs enlightening—by stating the fact that Fowler's solution is decomposed by tannic acid, a precipitate being formed which is not easily diffused

and would probably all remain in the bottle until the last dose was poured out when it would doubtless cause untoward effects. If this prescription came to us, we should refuse to fill it and strongly endeavor to convince the prescriber that certain medicinal substances are more reliable and better appearing, hence more resultful physically and psychically, when exhibited in their simplest forms.

"Solution of Glycerophosphates of Lime and Soda."—C. A. J., Pennsylvania.—In the CIRCULAR for March, 1910, page 114, appears a formula for an elixir of glycerophosphates, which, as it calls for no sugar, might just as well be called a formula for a solution. It is here reproduced:

Sodium glycerophosphate.. 25.00 grammes.
Calcium glycerophosphate. 8.75 grammes.
Phosphoric acid..... 10.00 grammes.
Glycerin 240.00 c.c. (mils).
Angelic wine..... 300.00 c.c. (mils).
Alcohol 30.00 c.c. (mils).
Tincture of sweet orange
peel 100.00 c.c. (mils).
Water.... enough to make 1,000.00 c.c. (mils).

This formula was suggested to the Philadelphia branch of the American Pharmaceutical Association, by W. L. Cliffe, who remarked: "The present directions [those of the National Formulary] are satisfactory but the additional phosphoric acid is required by the glycerophosphates on the market. This preparation is smoother and more palatable than the one made from aromatic elixir."

We have not experimented with this formula. In our opinion, it is, in common with most others for similar preparations originating in this country, faulty, in that the use of phosphoric acid is directed. It is the careful endeavor of the manufacturer to remove all traces of this acid from the glycerophosphoric salts. We suggest that, after changing the quantities, if this be necessary to meet the requirements of the prescriber, you experiment with glycerophosphoric acid in lieu of the phosphoric acid, triturating the salts with the glycerin and about 200 c.c. (mils) of water, adding the acid (about 10 c.c. [mils]) and then the other ingredients.

Other notes on preparations of the glycerophosphates appear in the issues of the CIRCULAR for June, 1910, page 277; April, July, August and September, 1909, pages 173, 350, 405, and 457, respectively; and April and November, 1908, pages 182 and 554, respectively.

Unguentum Leniens.—P. P., District of Columbia.—This is the German official name for cold cream. The formula in the German Pharmacopœia is as follows:

White wax..... 7 parts.
Spermaceti 8 parts.
Almond oil..... 60 parts.
Water 25 parts.

To every 50 grammes of the ointment which has been stirred until foamy, 1 drop of oil of rose is added.

It is customary in this country for every ingredient to be set down in the formula proper, not for one or more of them to be mentioned for the first time in the directions. The German official book states that "cold cream is white."

Elixir of Hydrastis.—C. A. J., Pennsylvania.—You might experiment, with the official formula for glycerite of hydrastis, U. S. P., as a basis, using the following formula as a beginning:

Glycerite of hydrastis.....	500 c.c. (mils.)
Alcohol	200 c.c. (mils.)
Rose water.....	100 c.c. (mils.)
Oil of sweet orange.....	1 c.c. (mil).
Distilled water enough to make	1000 c.c. (mils.)

Dissolve the oil in the alcohol; mix with the rose water and 150 c.c. (mils) of distilled water; mix all with the glycerite; set aside for twenty-four hours; and filter.

This gives a preparation representing approximately 30 grains (the average dose) of hydrastis in each fluid-dram. Should the physician for whose use it is designed wish a different dose, the proportion of glycerite may be changed accordingly.

Of course, there is no reason why the elixir should not be made direct from the crude drug, if the operator prefers to make it that way.

Liquid Sulphur.—F. A. L., Florida.—We believe that all the characteristics and real virtues of a so-called "liquid sulphur" are possessed by the solution of sulphurated lime of the National Formulary. The official formula is as follows:

Lime, fresh slaked.....	165 grammes.
Sublimed sulphur.....	250 grammes.
Water [boiling], a sufficient quantity.	

Mix the slaked lime with the sulphur, and add the mixture gradually to 1750 c.c. [mils] of boiling water. Then boil the whole, under constant stirring, until it is reduced to 1000 grammes; strain, and having allowed the solution to become clear by standing in a well-stoppered bottle, decant the clear brown liquid, and keep it in completely filled and well-stoppered bottles.

You may in this connection find interesting a note on "Soluble Sulphur" which appears in the CIRCULAR for August, 1910, page 423.

Massage Cream.—C. B., California.—As you do not specify just what kind of a massage cream you want, and as there are several types, we can do no better than refer you to information we have already given on the subject. If we knew exactly the type of cream you wish to make we might be more specific in our reply.

Formulas for massage cream appear in the issues of the CIRCULAR for last month, page 612; May, page 257; and March, page 137. By referring to the annual index for 1910, we find about a dozen references to this subject, and the annual index for any one of several previous years shows as many. A note in the CIRCULAR for February, 1909, page 77, is particularly interesting in this connection, and the answer to another querist, on page 640, may be found helpful to you.

A Family-Medicine Tea.—C. P., New Jersey.—We have no knowledge of the composition of the nostrum to which you refer. We do know that many druggists find a profitable sale for St. Germain tea, the laxative species of the National Formulary.

Liquid Shoe Dressing.—G. A., Massachusetts.—A formula for such a preparation appears in the CIRCULAR for September, 1910, page 468.

Appeals to Readers.—Information is sought concerning the articles listed below. We ask for such help as our readers can give:

Universal Balm.—G. F. D., Massachusetts.
Camphorated Rhubarb.—C. H. J., Maryland.
Mucol.—L. Y. L., Maine.
Tarola.—R. M. G., Maryland.
Atwood's Bitters.—M. B., New Jersey.

Corn Quieters.

Feet that have been frolicking in canvas slippers are very liable to protest against the hampering of leather-lined waterproof, thick-soled footwear which their owners begin to affect at this season. Hence the following may be helpful—to maker as well as user.

Corn Paint.

Salicylic acid.....	1½ ounces.
Pyroxylin	1 ounce.
Amyl acetate.....	5 ounces.
Acetone	15 ounces.
Balsam of fir.....	2 drams.
Castor oil.....	2 drams.
Oil of cloves.....	15 minims.
Make a solution.	

This should not be made or used near an open flame.

Anodyne Corn Remover.

Salicylic acid.....	2 drams.
Extract of belladonna.....	1 dram.
Powdered French rosin.....	½ dram.
Castor oil.....	1 dram.
Flexible collodion... enough to make	2 ounces.

Cream of Camphor.

The formula here presented is taken from a report to the Philadelphia branch of the American Pharmaceutical Association by a committee of which Dr. E. Fullerton Cook was chairman:

Castile soap.....	120 grains.
Ammonium carbonate in clear pieces	120 grains.
Powdered camphor.....	120 grains.
Oil of thyme.....	1 fl. dr.
Oil of turpentine.....	2 fl. ozs.
Tincture of opium.....	2 fl. drs.
Water..... enough to make	1 pint.

Dissolve the soap and the ammonium carbonate in 10 fluid ounces of water, and introduce the solution into a pint bottle. Dissolve the camphor in the mixed oils, and add to the soap solution, shaking the bottle vigorously until an emulsion is formed. Finally add the tincture of opium, and enough water to make 1 pint, and mix well by shaking.

Formulas for preparations of a somewhat similar nature may be seen in the CIRCULAR for September, page 476.

Eucalymol Mouth Wash.

Thymol	1 gramme.
Benzoic acid.....	12 grammes.
Oil of peppermint.....	2 c.c. (mils.)
Oil of gaultheria.....	1 c.c. (mil).
Tincture of eucalyptus.....	60 c.c. (mils.)
Alcohol	400 c.c. (mils.)
Distilled water. enough to make	500 c.c. (mils.)

Minnesota Board Questions.

Herewith are reprinted from the twenty-sixth annual report of the Minnesota Board of Pharmacy a sample set of examination questions used by the board. Other sets of questions asked by the Minnesota board appear in the issues of the CIRCULAR for January, 1906, page 24; and December, 1887, page 286.

In reprinting board questions we endeavor to follow closely the nomenclature, spelling, punctuation and capitalization of the originals, our object being to give our readers, just as nearly as practicable, the questions as they were presented to the candidates.

Preliminary Examination.

1. Write ten words as dictated.
2. Give the meaning of the following words: (a) Force, (b) Colorless, (c) Storage, (d) Transparent, (e) Sufficient.
3. (a) Divide twenty four-thousands by sixteen-millionths. (b) Divide fifteen millionths by six-hundredths.
4. (a) From the sum of 27% and 20% take their difference. (b) From $\frac{3}{4}$ of $1\frac{1}{2}$ take 5-7 of 14-15.
5. (a) Multiply $30\frac{3}{4}$ by $6\frac{3}{4}$. Work out in fractions. (b) Divide 30.26 by 5.05. Do not convert to fractions, carry out two places.
6. (a) A cough mixture contains $\frac{1}{8}$ gr. Codeine Sulphate to the teaspoonful. The Doctor prescribes 4 oz. of this cough mixture and Aromatic Elixir using enough of each to make the dose of the Codeine Sulphate 1-12 gr. to the teaspoonful in the finished prescription. How much of the cough mixture and how much of the Aromatic Elixir should be used in the 4 oz. (b) How many capsules, 5 gr. each, can be filled from one ounce av. of Quinine?
7. A druggist buys a pound of Flex. of Cascara at \$2.25 less 40 per cent. At what price must he sell 1 oz. to make 100 per cent.
8. A sells 12 shares of stock to B for \$1,440.00. He made 20 per cent. on the sale. How much did he pay for 1 share?
9. At 10 cts. a glass what is the per cent. profit on a glass of Ice Cream Soda if 2 oz. of Ice Cream and 1 3-5 oz. of Syrup are used—Ice Cream costing 60 cts. a gallon and Syrup 25 cts. a qt., allowing $\frac{1}{2}$ ct. as cost of the Carbonated Water.
10. Write a short essay on "My Favorite Sport or Pastime."

Examination for Pharmacist.

Pharmacy.

1. Define the difference between (a) Maceration and Digestion; (b) Infusion and Decoction; (c) Emulsion and Mixture.
2. State how the following preparations are made: (a) Liquor Magnesii Citratis; (b) Unguentum Hydrargyri; (c) Tinctura Benzoini Composita.
3. (a) Explain the difference between Oleoresins and Fluidextracts; (b) Why are Fluidextracts the most consistent form of drugs to use?
4. Name the ingredients necessary to make the following preparations: (a) Compound Syrup of Sarsaparilla; (b) Fowler's Solution; (c) Solution of Lead Subacetate.
- (5) (a) What is Chloroform? (b) How is it prepared? (c) Describe its properties.
6. Give the common English names for the following preparations: (a) Aqua Amygdalae Amarae; (b) Hydrargyrum Ammoniata; (c) Liquor Ferri et Ammonii Acetatis; (d) Potassii et Sodii Tartras; (e) Spiritus Aetheris Compositus.
7. (a) Describe in detail the manipulation necessary to make Syrup of Ferrous Iodide; (b) How is the finished syrup preserved.
8. (a) Name the ingredients necessary to make Liquor Ferri et Ammonii Acetatis; (b) What precaution is necessary to prevent this from being an unsightly mixture?
9. Describe Granular Effervescent Powders and give general formula for their preparation.
10. (a) State how to prepare a Gum Resin Emulsion; (b) a Fixed Oil Emulsion; (c) a Volatile Oil Emulsion.

Chemistry.

1. (a) What is a Radical? (b) What is the Ethyl Rad-

ical? (c) What is the Methyl Radical? (d) What is the combining power of these Radicals?

2. (a) What are Aldehydes? (b) From what and how obtained?
3. How much Sulphuric Acid would be required to make 100 cc. Normal Volumetric Solution?
4. What reaction takes place in the manufacture of pills of Ferrous Carbonate? Also show by equation.
5. Complete the following equation: $2 \text{Fe}_2\text{SO}_4 + 6 \text{Mg} (\text{O H}) = ?$ Naming all members of the equation.
6. Would a stable Precipitate be produced by mixing Mercuric Chloride 6 gms., Potassium Iodide 25 gms., Water 500 cc. If so, describe the precipitate, and if not, what reaction does take place?
7. How could you distinguish between Solution of Tersulphate of Iron and Solution of Subsulphate of Iron by their reaction with Sulphuric Acid?
8. What is the difference between hard and soft water and what causes "temporary hardness" and "permanent hardness" in water?
9. What is the percentage of Sodium in $\text{Na}_2 \text{SO}_4 + \text{H}_2\text{O}$? Atomic weights, Na. 23, S 32, O 16 and H 1.
10. Describe the Leblanc process for the manufacture of Carbonate of Soda.

Botany and Materia Medica.

1. Give the medicinal use and dose of Acidum Benzoicum.
2. Give the official definition of Poke Root.
3. (a) Give the Latin name of Oil of Pennyroyal; (b) How is it obtained? (c) From what part of the plant is Oil of Thyme obtained? (d) What is another name for commercial Oil of Thyme?
4. From what are each of the following obtained? (a) Physostigmine; (b) Atropine; (c) Colchicine; (d) Hydrastine.
5. What are Latin names for the following: (a) Spearmint Water; (b) Syrup of Tar; (c) Milk of Asafoetida; (d) Blistering Collodion; (e) Eaton's Syrup.
6. What is the Latin name for (a) Javelle Water; (b) Dobell's Solution.
7. Define (a) Sialogogues; (b) Hydragogues; (c) Sternutatories; (d) Prophylactics; (e) Analgesics.
8. What part or parts of following are used: (a) Calamus; (b) Myrrh; (c) Viburnum Opulus; (d) Euonymus; (e) Eupatorium.
9. Give medicinal use of following: (a) Acidum Gallicum; (b) Acidum Hydrocyanicum; (c) Ammonii Bromidum; (d) Cerii Oxalas; (e) Bismuthi Subgallas.
10. Give Latin names of the following: (a) Black Haw; (b) Cane Sugar; (c) Marigold; (d) Boneset; (e) Queen's Root.
11. (a) What is the pistil of a flower? (b) What is the meaning of an Endogenous Stem? (c) Name three different forms of leaves.
12. Give medicinal properties of (a) Acetanilidum; (b) Atropine Sulph; (c) Camphora; (d) Ethylic Chloridum.
13. From what is Cera Alba obtained?
14. From what is Serum Antidiphthericum obtained?
15. Give Latin name and uses of Henbane.

Toxicology and Posology.

1. State the condition of pupils and skin in Belladonna poisoning.
2. Give antidote for (a) Sulphuric Acid; (b) Aconite; (c) Ether (when swallowed); (d) Lime; (e) Nux Vomica.
3. Give average metric dose of (a) Santonin; (b) Valerianate of Zinc; (c) Creosote; (d) Pow. Ext. Nux Vomica; (e) Tr. Stramonium.
4. Give minimum and maximum doses of (a) Salicylic Acid; (b) Ammon. Carb.; (c) Tr. Belladonna; (d) Caffeine Citrate; (e) Pot. Permanganate.
5. Give antidote for. (a) Nitroglycerine; (b) Acetate of Zinc; (c) Belladonna; (d) Ammoniated Mercury; (e) Antimony.
6. Give average dose of (a) Silver Nitrate; (b) Phosphorus; (c) Tr. Strophanthus; (d) Menthol; (e) Dover's Powder.
7. Would you dispense the following prescriptions? If not, give reasons:

(a) Morphine Sulph.....	gr. 10
Bismuth Sub. Gall.....	3 1
Mix.	
Div. into Pow. No. 15.	
Si. One every six hours.	

(b) Salol	3 3
Strychnine Sulph.	gr. 2
Pow. Ext. Belladonna.....	gr. 20

Mix.

Div. into Pow. No. 40.

S. One after meals.

8. Is the dose of the toxic ingredient in the following prescriptions a safe or an overdose?

(a) Acid Nitrohydrochloric.....	3 5
Ess. Pepsin.....	3 2
Water	ad 3 3

Mix.

S. One teaspoonful before meals.

(b) To Opium Camph.

Syr. Ginger.

Water aa 3 1 |

Mix.

S. One teaspoonful every four hours.

9. Would you dispense the following prescriptions? If not, give reasons.

(a) Santonin	3 2
Calomel	gr. 30
Pow. Sugar.....	3 2

Mix.

Div. into Pow. No. 30.

S. One at night.

(b) Codeine Sulph.....	3 1½
Terpin Hydrate.....	3 3
Pow. Ipecac.....	3 1

Mix.

Div. into Cap. No. 40.

S. One every three hours.

10. Give the chemical antidote for (a) Creosote; (b) Lead Acetate.

Practical.

No. 1. (Value 10.)

R Liq. Potass. Arsenit.....	3iiss
Ferri et Ammon. Citrat.....	3iiss
Tinct. Calumb.....	3vi
Aq	ad 3iv

M. Sig. A teaspoonful in water after meals.

No. 2. (Value 10.)

R Bismuth Oxid.....	2.0
Acid. Oleic.....	2.0
Ceræ Alb.....	4.0
Petrolati	8.0

M. ft. ung. sec. art.

Sig. Ointment of Bismuth Oleate.

No. 3. (Value 10.)

R Quinin. Sulph.....	1.
Ammon. Carb.....	3.
Alcohol	25.
Elixir	50.
Aq	ad 100.

M. ft. mist. s. a.

Sig. A teaspoonful in water every three hours.

No. 4. (Value 10.)

R Sulphur	3i
Phenol	3ii
Ung. Hydrarg. Nitrat.....	3iv
Ol. Olivæ.....	
Ceræ Flav.....	a a 3ii

M. ft. ung.

Sig. Apply at night.

No. 5. (Value 10.)

R Iodi	gr. i
Ferri Iodid.....	gr. x
Potass. Iodid.....	gr. xx
Ext. Conii.....	gr. x

M. ft. mass, et div. in pil. x.

Sig. One three times a day.

No. 7. (Value 20.)

Arsenic Trioxide.....	1.0 Gm.
Diluted Hydrochloric Acid.....	5.0 Gm.
Distilled Water to make.....	100.0 Gm.

Make a solution.

Label—Solution of Arsenous Acid.

No. 8. (Value 10.)

Neatness in labelling and wrapping will be considered and marked accordingly.

No. 6. (Value 20.)

Prepare 4 ounces Antiseptic Solution according to the following formula:

Boric Acid	20.
Benzoic Acid.....	1.
Thymol	1.
Eucalyptol	.25
Oil of Peppermint.....	.50
Oil of Gaultheria.....	.25
Oil of Thyme.....	.10
Alcohol	250.
Purified Talc.....	20.
Water to make.....	1000.

Examination for Assistant Pharmacist.

Pharmacy.

- (a) What is Commination and how effected? (b) Define Fractional Distillation.
- State how the following preparations are made: (a) Elixir Aromaticum; (b) Collodion.
- (a) What is a Menstruum? (b) an Excipient? (c) a Precipitate?
- Describe three methods for preparing official Tinctures. (b) Give an example of each.
- Define in detail the manipulation necessary to make the following preparations: (a) Lime Water; (b) Camphor Water; (c) Cerate.
- Give the Latin official title for the following: (a) Epsom Salts; (b) Calomel; (c) Cream Tartar; (d) Rochelle Salts; (e) Brown Mixture.
- Give the best solvent for the following: (a) Iodine; (b) Resins; (c) Tartar Emetic.
- Give the official name and ingredient of each of the following: (a) Chalk Mixture; (b) Compound Powder of Glycyrriza; (c) Ointment.
- Explain the meaning of the terms "Volatile" and "Fixed" oils. Give an example of each.
- (a) What is the best means of effecting the solution of a solid? (b) Is there any difference between Spirits of Ammonia and Aqua Ammonia? If so, what?

Chemistry.

- Name the two (2) series of compounds formed by Fe and Hg with examples of each.
- What color is imparted to a non-luminous flame by (a) Sodium Salts; (b) Potassium Salts; (c) Barium Salts.
- Give chemical name for each of the following: (a) $KClO_3$; (b) $NH_4C_2H_3O_2$; (c) $KMnO_4$; (d) $CHCl_3$; (e) C_2H_5OH .
- Complete the following equation, naming all the members: $HgNO_3 + HCl = ?$
- In what proportion by volume and by weight are H and O combined in Hydrogen Dioxide?
- (a) What is Calomel chemically? (b) What is Corrosive Sublimate chemically? (c) Give a simple test to distinguish one from the other.
- What is the percentage strength of: (a) Water of ammonia? (b) Stronger Water of Ammonia? (c) Glacial Acetic Acid? (d) Acetic Acid?
- (a) Name five inorganic acids, giving formula for each. (b) Name five organic acids, giving source of each.
- Name the following salts in the order of their solubility in water: (a) Zinc Sulphate; (b) Gallic Acid; (c) Sodium Chloride; (d) Lime; (e) Sodium Bicarbonate.
- How much Mercury is contained in ten grains of $HgCl$? (Atomic weights $Hg=200$; $Cl=35$).

Botany and Materia Medica.

- Nux Vomica. (a) What part or parts of plant are used? (b) Give medicinal properties. (c) Give dose. (d) What alkaloid is obtained from it?
- Give Latin names for following and name part or parts used: (a) Sage; (b) Bitter Apple; (c) Soap Bark; (d) Dandelion.
- Griffith's Mixture. (a) Give Latin name. (b) Give medicinal properties.
- Give medicinal properties of: (a) Sodii Salicylas; (b) Sodii Phosphas; (c) Ipecacuanhae; (d) Sanguinaria; (e) Terpini Hydras.
- Give source of following: (a) Cocaine; (b) Atropine; (c) Quinine; (d) Codeine; (e) Physostigmine.
- Give official Latin names of the following: (a) Gray Powder; (b) Quicksilver; (c) Lunar Caustic; (d) Spirit of Mindererus; (e) Glauber Salts.

7. What is the meaning of each of the following: (a) Counter-irritant; (b) Emolient; (c) Cardiac Stimulant; (d) Anthelmintic; (e) Astringent.

8. (a) What is meant by the apex of a leaf? (b) What is meant by the margin of a leaf? (c) What is meant by the petiole of a leaf?

9. Give Latin names for the following: (a) English Salts; (b) Mild Mercury; (c) Cream of Tartar; (d) Hive Syrup; (e) Salts of Tartar.

10. Give medicinal properties of: (a) Alumen Exsiccatum; (b) Ceril Oxalas; (c) Argenti Nitras; (d) Oleum Morrhuæ; (e) Digitalis.

Toxicology and Posology.

1. What is the best chemical antidote for Silver Nitrate and what does it do?

2. Give antidote for: (a) Hydrochloric Acid; (b) Paris Green; (c) Caustic Potash; (d) Iodine; (e) Belladonna.

3. Give minimum and maximum doses of: (a) Tr. Aconite; (b) Acid Hydrochloric Dil; (c) Tr. Belladonna; (d) Acetanilid; (e) Ammon. Chloride.

4. Give average dose of: (a) Morphine Sulph.; (b) Fowler's Solution; (c) Tr. Chlor. of Iron; (d) Tr. Opium; (e) Strychnine Sulph.

5. What is the largest dose you would dispense of: (a) Atropine Sulph? (b) Potass. Bromide? (c) Acid Hydrocyanic Dil? (d) Sodium Salicylate? (e) Tr. Ginger?

6. Give antidote for: (a) Strychnine; (b) Laudanum; (c) Ammonia; (d) Lead Acetate; (e) Acid Oxalic.

7. Would you dispense the following? If not, give reasons:

(a) Potass. Citrate.
Potass. Acetate..... aa 3 4
Tr. Belladonna..... 3 5
Simple Elix. add..... 3 4

Mix.

S. Teaspoonful three times a day.

(b) Calomel.

Soda Bicarb..... aa 3 1

Div. into Pow. No. 6.

S. One at night.

8. Is the dose of the toxic ingredient in the following a safe or an overdose?

(a) Pow. Ext. Belladonna..... 3 ½
Mix.

Sodium Salicylate..... 3 2

Div. into Cap. No. 24.

S. One every four hours.

(b) Acid Arsenous..... gr. 1½

Blaud's Mass..... 3 2½

Mix.

Div. into Cap. No. 30.

S. One after meals.

9. Should the following be dispensed? If not give reasons:

(a) Syr. Squills..... 3 3
Wine of Ipecac..... 3 4
Tr. Opium Camph..... 3 2
Syr. Tolu..... ad 3 6

Mix.

S. Teaspoonful every four hours.

(b) Pow. Ext. Nux Vomica..... 3 1

Soda Bicarb..... 3 3

Mix.

Div. into Cap. No. 50.

S. One before meals.

10. Define (a) Toxicology; (b) A Corrosive Poison.

Practical.

No. 1, (Value 15).

R Morphine Sulph..... gr. xii
Acid Boric.....
Sodii Borat..... aa gr. v
Aq. Destil..... ad 3 i
Ft. sol. s. a.
Sig. Drop into eye several times daily.

No. 2, (Value 15).

R Camphor. Monobrom..... gr. xii.
Ext. Belladon..... gr. ii.
Pulv. Saponis..... q. s.
M. et div. in pil. xii.
Sig. One at bedtime.

No. 3, (Value 15).

R Hydrargyri
Adipis Lanæ..... aa 3 ii.
Ft. ung.
Sig. Apply as directed.

No. 4, (Value 20).

Prepare 100 Cc. Emulsion of Castor Oil containing 25% of oil.

No. 5, (Value 30).

Prepare 100 Cc. Syrup of Tolu as follows:

Tincture of Tolu..... 5 Cc.
Magnesium Carbonate..... 1 Gm.
Sugar 82 Gm.
Water..... a sufficient quantity to make 100 Cc.

Rub the Tincture of Tolu with the Magnesium Carbonate and 6 Gms. of the Sugar. Then gradually add 45 Cc. of water and filter. Dissolve the remainder of the Sugar in the filtrate with the aid of a gentle heat, strain and add water enough to make 100 Cc.

No. 6, (Value 5).

Neatness in labelling and wrapping will be considered and marked accordingly.

Chewing Gum.

In a recent issue of the *Chemist and Druggist* was given the following process for making the various sorts of chewing gum:

Chicle gum, employed as a basis of chewing-gum, is first purified from foreign matter by boiling with water and drying the gum. The general formula is as follows:

Gum chicle..... 1 pound.
Powdered sugar..... 3 pounds.
Flavoring ingredients..... enough.

The gum chicle is coarsely powdered, mixed with the sugar, and then heated in an evaporating-basin until the mass softens. It is then well worked and transferred to a slab sprinkled with sugar, the flavoring ingredients are added, and the whole kneaded until uniform. Finally, the mass is rolled out into thin sheets, and while still warm cut into flat sticks, a little powdered sugar being used to prevent the mass sticking to the slab.

The flavorings are essential oils, used in the proportion of 1 to 2 drams to the pound of finished gum. The flavors employed are peppermint, wintergreen, cassia, sassafras, almond, cloves, vanilla, and orris [and the latterly popular spearmint].

Pepsin gum is made by adding ½ ounce of pepsin to each pound of basis; *kola gum* by the addition of 1 ounce of powdered roasted kola-nut; and *black gum* by using the same quantity of extract of licorice. *Chocolate gum* contains powdered chocolate, and may be flavored with vanilla.

Endeavors are often made to cheapen the production by introducing other ingredients, among which is paraffin wax—a not altogether desirable substance, owing to its complete indigestibility. The same objection does not apply to spruce gum, which in the variety known as *spruce chewing gum* is employed in an equal proportion to the chicle gum.

Synthetic Wallflower Odor.

Oil of rose geranium..... 8 minims.
Oil of linaloe..... 8 minims.
Oil of ylang-ylang..... 8 minims.
Oil of cloves..... 8 minims.
Oil of bitter almond..... 8 minims.
Oil of neroli..... 8 minims.
Cumarin 8 grains.
Tincture of musk..... 10 drams.
Tincture of orris..... 10 drams.
Jasmin extract..... 5½ ounces.
Tuberose extract..... 4 ounces.
Tincture of vanilla..... 1½ ounces.
Alcohol (80%)...enough to make 2 pints.

Forgetting to charge goods bought on credit has doubtless been the ruin of many merchants.

Correspondence.

Short, timely articles upon subjects of interest to pharmacists are solicited for this department. In order to be in time for publication in the issue of a given month, they should be in the editor's hands on the fifteenth day of the month previous. Anonymous communications will not be published; but if the author expresses a wish to have his name withheld, this wish will be scrupulously regarded and his letter considered confidential.

Why Some College Graduates Fail at State Board Examinations.

Philadelphia, Pa., September 22d, 1911.

To the Editor of THE DRUGGISTS CIRCULAR:

I do not know whether it is exactly proper for so humble a person as myself to raise a voice in the controversy regarding graduation and licensure. Nevertheless I have done so with the object of presenting the view of those whom the controversy primarily concerns, namely the prospective pharmacists.

The poor showing of graduates of the "recognized colleges" before the State boards is the combined fault of the average proprietor, the average college graduate, and the State boards.

I will endeavor to prove this by stating some straight, hard, cold facts which every pharmacist, teacher and graduate knows to be true.

First. Why is the average proprietor at fault?

At the "recognized colleges" we are taught theory and practice such as becomes the highest type of pharmacist. They teach us and impress upon our minds that in order to live up to our chosen profession we must furnish what is asked for on a physician's prescription. Furthermore, they tell us that we must prepare the prescribed articles according to the recognized standards. Also, that these preparations must be made with infinite care by us if the prescription is to produce the desired effect.

We go back to the store, and, for example, start to make up a lot of "citrate of magnesia" strictly U. S. P., as our label claims. The "boss" looks on a minute and says, "We don't make our citrate according to the U. S. P. here. We always add some epsom salt and use less citric acid and magnesium carbonate"; or he will prepare it himself according to his private formula.

Next the syrup of iodide of iron runs out, and we start to weigh out our card teeth and iodine, just as we did it at college. Again the "boss" interrupts and says "Say, young fellow, this is an up-to-date store. You'll find some X. Z. Co.'s concentrated solution in the cellar-way, make it from that."

Then we run out of some tincture directed to be made by percolation and start to prepare that, but his watchful eye detects the "slip" in time and he hands you the fluidextract of the drug made by some firm of questionable character and tells you to make it according to the formula on the back of the bottle.

Maybe you will get a prescription for some U. S. P. pill. Instead of making it, you are compelled to use some manufacturer's ready-made pill.

And the reason they give you for doing this sort of thing is to save time. Save time for what? Oh! to attend to the soda fountain, cigars, windows, telephone messages and the thousand and one other side lines.

Hundreds of instances like the above could be cited.

Is it any wonder then that a graduate taught professional pharmacy at college, compelled to do things according to the methods and formulas of his employer, or still worse employers (no two of whom seem to do things alike) is at his wits' end when examined by a third party, the State board?

When asked how to prepare this, that, or the other, his way of doing it in stores comes to him first because he has done it that way so often. When he remembers what the professors told him he becomes confused, and his answers are not representative of what has been taught him, and what he knows to be right.

Yes, sad to relate, the average proprietor will laugh at you when, alive with enthusiasm over your profession, instilled into you by your professors, you attempt to practice it. They say "Forget it, boy; that stuff is all right to preach, but practicing it will never get you or me a dollar."

So they educate us in our four years, which are required for registration and average 16,640 hours, to be "commercial druggists." Then we go to college for 1,500 hours, or less, of real professional pharmacy and the State board asks us questions that a "professional pharmacist" should be able to answer about things that we did and were taught correctly for 1,500 hours, and practiced incorrectly for 16,640 hours.

Of course, not all pharmacists are of the type described, but neither do all graduates fail to pass. Where one is fortunate enough to have a Blair, a Hunsberger, a Beringer, a Raubenheimer or one of the other good ones as a preceptor, there is little chance of not becoming professional. These men, however, are, by far, in the minority.

Second. Why is the average graduate at fault?

I am sorry to say that a great percentage of pharmacy students are not square.

So much depends on the student's getting through college and passing the State board, that he will leave no stone unturned to gain his ends. He will appeal to the sympathy of the professors and board examiners. Failing to get any material aid there, he will appeal to class-mates and his societies to help him out. Finally, he will make out a crib and by hook or crook pass his examinations.

The reason he can pass college examinations in this manner easier than the State board, is because he knows what subject he will be examined on, and just what has been gone over at college in that year.

The State board questions cover so vast a field that he does not know what to put on his crib, so he trusts to luck, his neighbor, and his eyesight. If these assets fail him, he meets his Waterloo and the college is blamed for graduating him.

There are few drug clerks who really want to be true pharmacists. Most of them welcome the easy way out of making U. S. P. preparations proposed by the "boss" and think he is great, but when they happen to get a job with a real pharmacist, he is a crank and they quit. Thus through lack of character and ambition they fall into that seemingly endless rut, and if they do pass college and board, become the same type of commercial druggist as their preceptor—only a little bit worse.

Another factor that creeps in is the dishonesty, or rather perjury, regarding practical experience. Clerk upon clerk goes to a notary and swears that he has

had four years of practical experience, and employer upon employer will do likewise for him, when the truth is that he has had three years, two years, one year, or perhaps no experience at all. Of course, this shows up in the answers he gives to practical work and in the way he makes his preparations. But who is there to contradict his sworn statement. Again the college is unjustly blamed.

Third. Why are the State boards at fault?

In the first place they are too full of politics. The examiners are appointed by politicians, many use politics to get on the board and practice politics while they are members.

Many fellows have passed a board because their congressman "tipped off" the examiner.

Many fellows have flunked because examiners have had personal feelings against them, their preceptors or their college.

We have also heard the report that the registration must be kept low so as to keep up the high standard of the State. Thus, if there is an overflow of pharmacists in the State, more applicants have to flunk. They never publish your average.

Furthermore, State boards in order to dig up new questions go way back behind our times. They ask us of drugs, preparations, and methods long forgotten, and never known to the present applicant.

Their tendency is more to the catch question than to the straightforward one which will not confuse. There seems to be a desire to establish how little a fellow knows instead of how much he knows.

State boards seem to take a delight in "showing up" the "recognized colleges" at the expense of their graduates. Their examinations are unfair in another sense. We hear of movements for the promotion of the public health every day. They advocate more light, better ventilation and sanitary conditions in general.

Let us pass into the examining rooms of the State board. We see a stuffy, poorly ventilated, poorly illuminated room in which one hundred and fifty or more applicants are confined for six hours or more. Under these conditions they are to answer one hundred and fifty to two hundred questions, many of which require tedious calculations and all of which require a certain amount of reasoning. It stands to reason that candidates subjected to this ordeal under such adverse conditions are unable to do their best.

Another point is, that every one knows that each question has a different value, but these values are not published. The examiner can thus give one man one value for a correct answer and the next man a greater or less value, just depending on whether he wants to pass him or "flunk" him. In this way they can bring up or pull down a general average to suit themselves, but the applicant has no redress.

The thing taken as a whole dwindles down to the profession itself. If pharmacy attains its true place in the professions which it formerly held, apprentice and employer will work together along professional lines; college faculties and State boards will work together along professional lines, and the portals of the profession will be closed to those whose aspirations are not professional.

At present, the colleges and their faculties are working hard toward that end. The proprietors and State boards are shooting wide of the mark. When we see the poor answers given by the graduate of the college, whose president is also president of the State

board, we cannot help but think that State board and college must be working in opposite directions.

ROBERT P. FISCHER, PH. G.

Proposed National Formulary Formulas.

Washington, D. C., October 21st, 1911.

To the Editor of THE DRUGGISTS CIRCULAR:

I am sending you herewith, for general discussion, an installment of formulas that it is proposed to add to the National Formulary, and trust that you will be willing to bring them to the attention of members of the American Pharmaceutical Association and other pharmacists and druggists who may be interested.

The object of giving publicity to proposed changes and additions is to elicit, if possible, comment and criticism before the final publication of the fourth edition of the National Formulary so as to avoid, as much as possible, untoward criticism of the book after its promulgation as a national standard.

If editors of pharmaceutical journals will give publicity to the material as offered, and if secretaries of local branches of the American Pharmaceutical Association will offer this material for experimentation and discussion there will be no danger of incorporating into the forthcoming edition of the National Formulary formulas that have not been thoroughly tried in the different sections of the country under varying conditions.

In this connection it should be remembered that failure to criticise any or all of these formulas must be taken as a tacit acquiescence and will necessarily lead members of the committee on National Formulary to infer that the formulas as offered are acceptable.

Trusting that you will be willing to co-operate in the work of perfecting the National Formulary, I am, [etc.].

M. I. WILBERT.

[The enclosure follows, edited to make it uniform in appearance with other matter of a like nature printed in THE DRUGGISTS CIRCULAR. We trust that our readers will comment on and criticise the formulas, as requested.—Editor THE DRUGGISTS CIRCULAR.]

National Formulary.

The following are some of the new formulas that have been suggested for inclusion in the forthcoming edition of the National Formulary. The committee is desirous of having them thoroughly tried by pharmacists in different sections of the country so as to avoid, as much as possible, unfavorable comment after the final publication of the book. Comments and criticisms based on practical experience will be welcome. All communications should be addressed to the Chairman of the Committee, Prof. C. Lewis Diehl, 932 Cherokee road, Louisville, Ky., who will submit the comment to the sub-committee having the matter in charge:

Elixir Amygdalæ Compositum.

Compound Elixir of Almond.

Oil of bitter almond.....	6.5 c.c. (mil).
Vanillin	1.0 gramme.
Stronger orange flower water.....	150.0 c.c. (mils).
Alcohol	50.0 c.c. (mils).
Syrup	400.0 c.c. (mils).
Kieselguhr	10.0 grammes.
Distilled water....enough to make	1000.0 c.c. (mils).

Dissolve the oil of bitter almond and the vanillin in the alcohol, add the syrup and then the stronger orange flower water, then the distilled water in several portions, shaking the mixture thoroughly after each addition; then add the kieselguhr, mix and filter, returning the first portion of the filtrate, if necessary, until it runs through

clear. Lastly, wash the filter with sufficient of a mixture of alcohol 1 volume and distilled water 19 volumes, until 1000 c.c. (mils) of product is obtained.

Elixir Glycyrrhizæ Aquosum.

Aqueous Elixir of Licorice. Aqueous Elixir of Glycyrrhiza.
Fluidextract of glycyrrhiza..... 150 c.c. (mils).
Compound spirit of cardamom..... 5 c.c. (mils).
Stronger orange flower water..... 200 c.c. (mils).
Glycerin 150 c.c. (mils).
Syrup 150 c.c. (mils).
Water.....enough to make 1000 c.c. (mils).
Mix and filter.

Elixir Rubrum.

Red Elixir.

Cudbear 2 grammes.
Aromatic elixir..... 1000 c.c. (mils).

Add the cudbear to the aromatic elixir, in a suitable container, and allow the mixture to stand for six hours with occasional agitation, then filter.

Elixir Cardamomi Compositum.

Compound Elixir of Cardamom.

Compound spirit of cardamom..... 10 c.c. (mils).
Alcohol 90 c.c. (mils).
Syrup 400 c.c. (mils).
Kieselguhr 10 grammes.
Distilled water.....enough to make 1000 c.c. (mils).

Mix the compound spirit of cardamom with the alcohol, add the syrup and then the distilled water in several portions, shaking the mixture thoroughly after each addition; then add the kieselguhr, mix and filter, returning the first portion of the filtrate, if necessary, till it runs through clear. Lastly, wash the filter with sufficient of a mixture of alcohol 1 volume and distilled water 9 volumes, until 1000 c.c. (mils) of product is obtained.

Spiritus Cardamomi Compositus.

Compound Spirit of Cardamom.

Oil of cardamom..... 20.0 c.c. (mils).
Oil of orange..... 20.0 c.c. (mils).
Oil of cassia..... 2.0 c.c. (mils).
Oil of cloves..... 1.0 c.c. (mils).
Alcohol [sic]..... 1.0 c.c. (mil).
Oil of caraway..... 0.1 c.c. (mil).
Alcohol.....enough to make 200.0 c.c. (mils).

Mix the oils with 140 c.c. (mils) of alcohol, finally adding a sufficient quantity of alcohol to make the spirit measure 200 c.c. (mils).

Elixir Vanillini Compositum.

Compound Elixir of Vanillin.

Compound spirit of vanillin..... 20 c.c. (mils).
Alcohol 80 c.c. (mils).
Glycerin 25 c.c. (mils).
Syrup 300 c.c. (mils).
Kieselguhr 10 grammes.
Tincture of caramel..... 20 c.c. (mils).
Distilled water.....enough to make 1000 c.c. (mils).

Mix the compound spirit of vanillin with the alcohol, add the glycerin, and then the syrup and the distilled water in several portions, shaking the mixture thoroughly after each addition; then add the kieselguhr, mix and filter, returning the first portion of the filtrate, if necessary, till it runs through clear. Lastly, wash the filter with a mixture of alcohol 1 volume and distilled water 9 volumes, until 980 c.c. (mils) of product is obtained. Finally, add 20 c.c. (mils) of tincture of caramel.

Elixir Trium Bromidorum.

Elixir of Three Bromides.

Potassium bromide..... 80 grammes.
Ammonium bromide..... 80 grammes.
Sodium bromide..... 80 grammes.
Cudbear 2 grammes.
Compound elixir of almond to make. 1000 c.c. (mils).

Dissolve the bromides in sufficient compound elixir of almond, add the cudbear and allow the mixture to macerate in a closely stoppered bottle for six hours, with occasional shaking. Finally filter.

Elixir Formatum.

Elixir of Formates.

Potassium formate..... 50 grammes.
Sodium formate..... 50 grammes.
Aromatic elixir.....enough to make 1000 c.c. (mils).
Dissolve the formates in the aromatic elixir and filter.

Elixir Formatum Compositum.

Compound Elixir of Formates.

Monohydrated sodium carbonate.... 23 grammes.
Magnesium carbonate..... 20 grammes.
Strontium carbonate..... 25 grammes.
Lithium carbonate..... 8 grammes.
Quinine alkaloid..... 7.7 grammes.
Formic acid..... 200 c.c. (mils).
Compound spirit of cardamom..... 10 c.c. (mils).
Acetic ether..... 2 c.c. (mils).
Alcohol 100 c.c. (mils).
Glycerin 300 c.c. (mils).
Purified talc..... 20 grammes.
Distilled water.....enough to make 1000 c.c. (mils).

Add the formic acid to 300 c.c. (mils) of distilled water and in this dissolve the carbonates and then add the quinine; to this solution add the glycerin and then the alcohol previously mixed with the compound spirit of cardamom and the acetic ether, agitate thoroughly and add sufficient distilled water to make the product measure 1000 c.c. (mils). Then add the purified talc, mix and filter with sufficient mixture of alcohol, 1 volume, distilled water 9 volumes, until 1000 c.c. (mils) of finished preparation is obtained.

Spiritus Vanillini Compositus.

Compound Spirit of Vanillin.

Vanillin 40 grammes.
Oil of orange..... 10 c.c. (mils).
Oil of cardamom..... 2 c.c. (mils).
Oil of cassia..... 1 c.c. (mil).
Alcohol enough to make 200 c.c. (mils).

Dissolve the vanillin and the essential oils in 150 c.c. (mils) of alcohol and then add sufficient alcohol to obtain 200 c.c. (mils) of product. Store in tightly stoppered amber colored vials, in a cool place, protected from light.

Elixir Aurantii Amari.

Elixir of Curacao.

Elixir of Bitter Orange.

Oil of bitter orange..... 4 c.c. (mils).
Tincture of bitter orange peel..... 20 c.c. (mils).
Alcohol 300 c.c. (mils).
Stronger orange flower water..... 20 c.c. (mils).
Syrup 400 c.c. (mils).
Kieselguhr 10 grammes.
Distilled water.....enough to make 1000 c.c. (mils).

Mix the oil of bitter orange and the tincture of bitter orange peel with the alcohol, add the syrup and then the stronger orange flower water and then the distilled water, in several portions, shaking the mixture thoroughly after each addition; then add the kieselguhr, mix and filter, returning the first portion of the filtrate, if necessary, till it comes through clear. Lastly, wash the filter with sufficient of a mixture of alcohol 3 volumes and distilled water 7 volumes, until 1000 c.c. (mils) of product is obtained.

Elixir Sodii Salicylatis Compositum.

Compound Elixir of Sodium Salicylate.

Sodium salicylate..... 80 grammes.
Fluidextract of cimicifuga..... 32 c.c. (mils).
Fluidextract of gelsemium..... 16 c.c. (mils).
Potassium iodide..... 16 grammes.
Purified talc..... 15 grammes.
Aromatic elixir.....enough to make 1000 c.c. (mils).

Dissolve the sodium salicylate and potassium iodide in 800 c.c. (mils) of aromatic elixir to make 1000 c.c. (mils). Add the purified talc, mix and filter.

Compound elixir of sodium salicylate should be kept in amber-colored bottles, protected from the light.

Work for the N. A. R. D. to Do.

Pittsburgh, Pa., October 14th, 1911.

To the Editor of THE DRUGGISTS CIRCULAR:

The tone of your editorial on the 1911 meeting of the National Association of Retail Druggists pleases me, for it seems to urge us to more substantial progress. It seems to say: "You have done well, but with a little more determination you could have done better." And this reminds me of Andy Carnegie's sentiments, viz.: "Divine discontent" has accomplished the great things in history. The incentive toward betterment is the force that carries civilization

forward. Nothing is ever achieved by folding one's hands and "letting well enough alone."

And let me say that the resolution which referred to "blind tigers" was intended to show the need of laws which will give pharmacy boards *judicial powers*. All States should prohibit the opening of new drug stores without a permit or license, and they should provide for an annual renewal of license by all existing drug stores. The license should cover the individual, the town, and the street location. The boards should have power to refuse a new license, or renewal of one, for cause. In this way only can a proper control of the practice of pharmacy be maintained, in prohibition districts especially.

LOUIS EMANUEL.

Colleges and Boards Both to Blame.

Terrell, Tex., October 19th, 1911.

To the Editor of THE DRUGGISTS CIRCULAR:

I have read with much interest the articles appearing in the October and other issues of the CIRCULAR on the subject of the failures of college graduates to pass the board of pharmacy examinations, and the different suggestions for remedies for said failures. Supposing the subject still open for discussion, I wish to express my views on it.

First. The points brought out in the article, "Gettery and Forgettery of College Students," page 578, October CIRCULAR, clearly show to my mind that the colleges are at fault in admitting students whose literary training has been too limited to enable them to think, and reason carefully on scientific subjects, and thus the student is taught to rely on committing to memory quizzes and lectures instead of reasoning from scientific principles, gained from careful classroom study.

Second. Classes in these schools are usually so large that direct recitation is impossible, and the student has little or no chance to let the instructor know just where his weak points are, and these weak points, being overcome by the quiz system of preparing for examinations, are clearly brought out in the board examinations.

Third. I think that too much time and attention is given to high-class technicalities, which are of little or no concern to the retail drug clerk, and too little to those things which the druggist has need of daily. I think the boards of pharmacy could greatly assist the profession of pharmacy by eliminating such things from the examinations as only a specialist would be required to know, and in place of this give practical tests in such things as would be needed daily by the prescription druggist.

The committing to memory of the chemical symbols of the alkaloids is not as important to the druggist as a knowledge of the use, dose and incompatibles of these alkaloids. A closer unity between the college officials and the boards of pharmacy would do much to reduce the number of failures of graduates to pass the boards.

JAMES FOSTER.

There is something in the cork as well as in the bottle. Poor corks give a customer that kind of idea of the druggist who sends them out.

Who has seen a case recently of one label stuck over another on a bottle? For instance, a paregoric label stuck over a laudanum one?

Notices of Books Received.

A LABORATORY GUIDE IN BACTERIOLOGY for the Use of Students, Teachers and Practitioners. By Paul G. Heinemann, Ph. D. Second Edition. Duodecimo; cloth; xv + 210 pages; illustrated. \$1.50 net. Chicago: University of Chicago Press.

Here is a little book that seems to merit well its name of "Guide," for it points the way to the details and the principles of laboratory work in bacteriology intelligibly to the beginner as well as to the finished bacteriologist. The illustrations aid considerably toward a comprehension of the text.

Bacteriology is fast becoming recognized in its multi-phased influence. Even in medicine where it long has played a prominent part, the advances in the recognition of its many roles have been most marked. On the pharmacal side of medicine particularly bacteriology has recently advanced with rapid strides, and everywhere druggists now have use for a book like this guide. The more use they make of such a book and profit by that use in practice the more they are entitled to recognition as aids to the physician. In this guide they may find, simply and plainly set forth, facts of bacteriological technic, and general bacteriological practice, methods for the bacteriological examination of water, milk and soil, directions for preparing culture media and stains, dilution tables, and a comprehensive chapter on important pathogenic bacteria.

PRACTICAL MEDICAL CHEMISTRY for Physicians and Students. By Charles Platt, A. C., M. D., Ph. D., F. C. C. Lond., and William A. Pearson, Ph. C., Ph. D. Sixth Edition, Rewritten and Enlarged. Octavo; cloth; 260 pages, interleaved. \$2.50 net. Philadelphia: John Jos. McVey. 1910.

There is a clarity about the explanations and directions included in this book that should appeal to the average student of medical chemistry. Doubtless this has been one of the reasons for the sale of five editions. The general plan of arrangement is also to be commended. Students and practitioners will appreciate the interleaved blank pages for notes.

Several new chapters are a part of the present edition; and the authors state that the entire text has been critically revised. The subdivisions are (1) inorganic chemistry, (2) chemistry of the carbon compounds, and (3) physiological and clinical chemistry. In the appendix are a list of poisons and a guide to the treatment of poisoning, tables of weights and measures, solubilities, reagents, and acid radicals.

THE ELEMENTS OF QUALITATIVE ANALYSIS. By Wm. A. Noyes, Ph. D. Sixth Edition, Revised, in Collaboration with the Author, by G. McP. Smith, Ph. D. Octavo; cloth; v + 133 pages. New York: Henry Holt & Co. 1911.

The earlier editions of this work are rather well known to students of analytical chemistry as illustrating a method of presenting that subject so as to obviate later-to-be-regretted skimming through mazy passages. It has been the stated purpose of the author—and a purpose quite well adhered to—to impress his readers with the essentiality of learning a thing correctly in the first place.

In the present edition, there are many changes, chiefly in relation to the hydrogen sulphide group, the ammonium sulphide group, and arsenic, antimony

and tin. The general plan of the book is unaltered. On the fly-leaves are several useful solubility tables and a guide to group compounds.

A POCKET MEDICAL DICTIONARY, Giving the Pronunciation and Definition of the Principal Words Used in Medicine and the Collateral Sciences, Including Very Complete Tables of the Arteries, Muscles, Nerves, Bacteria, Bacilli, Micrococci, Spirilla, and Thermometric Scales, and a New Dose List of Drugs and Their Preparations, in Both the English and Metric Systems of Weights and Measures, Based upon the Eighth Revision U. S. Pharmacopoeia also a Veterinary Dose Table. By George M. Gould A. M., M. D. Sixth Edition, Revised and Enlarged, 34,000 Words. Sixteenmo; limp leather; 1,005 pages. \$1 net. Philadelphia: P. Blakiston's Son & Co. 1911.

A glance at the sub-title of this handy lexicon, which well enumerates its contents, will serve to show the usefulness of the book to druggist and drug clerk, and suggest its fitness as a gift to doctor or nurse.

THE MONARDAS; a Phytochemical Study. By Nellie Wakeman. A Contribution from the Course in Pharmacy at the University of Wisconsin.

This bulletin is a valuable addition to the literature of indigenous medicinal plants. Its contents embrace a chapter on the history of the genus monarda; a review of the chemical work on the genus; and chapters on the oils, pigmentation, and ferments of the several species. The author is an assistant in pharmaceutical chemistry at the University of Wisconsin.

ON THE ADDITION OF ORGANIC ACIDS TO UNSATURATED HYDROCARBONS. By Arthur F. Stevens. A Thesis Presented for the Degree of Bachelor of Science, the University of Wisconsin, 1909. Contributions from the Course in Pharmacy.

There is a healthy difference between this thesis and the paraphrased dispensatory monographs so frequent among graduates in pharmacy theses, that is encouraging to those who hope for better things in pharmacy.

THE PHYSIOLOGICAL STANDARDIZATION OF ERGOT. By Charles Wallis Edmunds and Worth Hale. Bulletin No. 76, Hygienic Laboratory, Public Health and Marine-Hospital Service of the United States.

THE MILK SUPPLY OF CHICAGO AND WASHINGTON. By George M. Whitaker, M. A., Sc. D. Bulletin 138, Bureau of Animal Industry, United States Department of Agriculture.

THE ACTION OF DRUGS UNDER PATHOLOGICAL CONDITIONS. By William Salant. Circular No. 81, Bureau of Chemistry, United States Department of Agriculture.

PROCEEDINGS OF THE MISSISSIPPI PHARMACEUTICAL ASSOCIATION at the Ninth Annual Meeting, Held at Greenville, June 13th and 14th, 1911.

SECOND ANNUAL REPORT OF THE MISSOURI BOARD OF PHARMACY for the Fiscal Year Ending July 31st, 1911.

A Change in the Federal Board of Food and Drug Inspection.

Early last month Secretary Wilson announced that Solicitor McCabe had asked to be relieved from serving upon the Board of Food and Drug Inspection, and that this request had been granted; that Dr. F. L. Dunlap, associate chemist, had been in Washington the entire summer, and was then about to go upon his vacation; and during his absence R. E. Doolittle, chief of the bureau of chemistry laboratory in this city, would sit with Dr. Wiley on the board.

In a subsequent order Dr. Doolittle was designated as successor to Mr. McCabe and the following directions given as to procedure of the board:

Recommendations for seizures under section 10 of the food and drugs act will be made by the board of food and drugs inspection, and when approved by the secretary the papers in connection therewith will be transmitted to the department of justice, through the office of the solicitor.

The employment of expert witnesses in cases arising under the food and drugs act will be considered by the board of food and drugs inspection, and recommendation made to the secretary. The amount of fees to be paid such witnesses will also be considered and determined by the board of food and drugs inspection, subject to the approval of the secretary.

Hereafter, and until otherwise ordered, all questions relating to citations for hearings under section 4 of the food and drugs act will be considered by the board of food and drugs inspection, and the determination made by a majority of that board as to whether or not citation shall issue. After hearings are held, determination as to whether or not the case shall be sent to the department of justice for prosecution shall be made by a majority of the board of food and drugs inspection. All cases recommended for prosecution by the board of food and drugs inspection will be transmitted to the office of the solicitor for preparation and transmittal to the department of justice. General order No. 140, dated June 9th, 1910, is hereby amended accordingly.

In connection with the announcement he has made, Secretary Wilson takes pains to declare in emphatic terms that it is the purpose of the department to give every possible facility to the enforcement of the pure food law.

Federal Positions Open.

The United States civil service commission announces an examination, of men only, to secure eligibles from which to make certification to fill several vacancies in the position of *pharmaceutical chemist*, at salaries ranging from \$1,600 to \$1,800 per annum, in the bureau of chemistry, department of agriculture, and vacancies requiring similar qualifications as they may occur, unless it shall be decided in the interest of the service to fill the vacancies by reinstatement, transfer, or promotion. The duties of the position will consist in making analyses of drugs and medicines and studying methods of analyses in the drug division of the bureau of chemistry at Washington, D. C., or in some of the branch laboratories of the bureau. Applicants are required to have an educational training equivalent to that required for the degree of bachelor of science from a reputable college or university. Such training should include a course in chemistry equivalent to three years of work with at least nine recitation hours a week, three laboratory hours being counted as one recitation hour. However, since it is desirable that applicants have had training in botany, pharmacognosy, and pharmacy, time given to any of these branches may be substituted, in part, for the chemical requirements. In addition, at least one year of post-graduate training or practical experience along lines related to the analysis of drugs, medicines, or organic technical preparations is a prerequisite for consideration for this position. Applicants must be not less than twenty-two years old nor more than forty-five at the time of examination. Applications must be filed with the commissioners at Washington before the closing of business on November 22d.

An examination to secure a list of eligibles for the position of *assistant pharmaceutical chemist* is also announced, to be held November 22d. The salary ranges from \$1,200 to \$1,400 per annum.

Further particulars of either examination may be obtained from the United States civil service commission, Washington, D. C.

The American Druggist's Fire Insurance Co. of Cincinnati has withdrawn from Texas and lodged a strong protest against the operation of the rate-regulating law. It is contended that the law stifles competition and will result in the withdrawal of all companies which are disposed to sell insurance at lower than the board rate.

German Officials on Sodium Benzoate.

The report made by the health officials of Germany on the use of sodium benzoate in foods, and which sustains the position originally taken by Dr. Wiley, and is antagonistic to the position taken by the Remsen board, has been transmitted to the agricultural department by the officials of the State department. That the German authorities had taken this stand was known, but the details of the report have not been known up to this time. The findings, promulgated by the German government in a public document, are entitled:

Report of the Royal Scientific Deputation for Medical Affairs concerning the uses of benzoic acid and its salts for preserving food materials.

The report contains a full history of the American controversy over sodium benzoate, including a resumé of the opinion of Dr. Wiley, the creation of the Remsen board by order of President Roosevelt, and the opinion of that board reversing the chief chemist. In conclusion the board says:

The Royal Scientific Deputation for Medical Affairs is likewise of the opinion that the use of benzoic acid and benzoates should not be permitted for the preservation of foodstuffs.

For even if in small amounts it may be considered as harmless for the human organism, still there is the danger present that by the addition of these substances to the various foodstuffs and drinks such amounts will be introduced that may possibly result in harm to the organism. This danger exists specially with children, aged persons and weakly and sickly persons, inasmuch as benzoic acid may be formed within the body out of foodstuffs to which no benzoate has been added.

A further consideration, which should be directed against the use of chemical preservatives in general, is that by their use the proper care and cleanliness on the part of the manufacturers and salesmen with such foods as may easily undergo decomposition, putrefaction or mold formation may be neglected; indeed, it may result in lowering the quality of the goods.

This, according to various communications, seems especially to be the case with margarin, for the preserving of which, as intimated, benzoic acid is used at present in large quantities. The commercial margarin at present contains much water, whereby its keeping qualities are lessened, while good margarin, according to a communication from the imperial health department, may be kept for months at a time without preservatives under suitable care. The poorly prepared and high water-containing margarin becomes a better nutrient ground for molds and bacteria, and for these reasons a preservative is required.

Similar considerations should be given in reference to easily decomposing protein-containing foodstuffs. The experiments of the imperial health department have shown, among other things, that a slight putrefactive odor of sausage meat, which may be weakened by simply turning or aerating but not removed, will disappear after a time when 25 per cent. benzoic acid or sodium benzoate is mixed with it. There can be given by this procedure the appearance of freshness to foodstuffs that already have entered upon decomposition, and the buyer may be deceived as to quality.

"Stickers" and the Postal Regulations.

Druggists who sometimes affix a sticker label to an envelope going into the mails will do well to read the following recently promulgated order of the postmaster-general:

No adhesive stamps or imitations of stamps of any form or design whatever other than lawful postage stamps shall be affixed to the address side of domestic mail matter, but such adhesive stamps, provided they do not in form and design resemble lawful postage stamps and do not bear numerals may be affixed to the reverse side of domestic mail matter. All domestic mail matter bearing on the address side adhesive stamps or imitations of stamps other than lawful postage stamps, will be returned to the sender if known; otherwise they will be forwarded to the division of dead letters.

Work Against Narcotics.

The Ohio Valley Druggists' Association at a meeting held in September decided that under no circumstances would it endanger the lives of the public by permitting its members to hand out samples of "patent soothing syrups," which contain narcotic drugs. At the last session of the legislature a bill was passed making it a misdemeanor to distribute from house to house samples of these syrups. To get around the decision the manufacturers have attempted to have the druggists hand the samples out to their customers. The druggists have, however, refused to do it because, they say, such preparations are invariably harmful. They resolved to lend no aid in the distribution of such preparations, but to endeavor to warn the public against the use of soothing syrups which contain narcotic drugs. They decided, further, that they will make every lawful effort to prevent the sale and distribution of such preparations.

Arrests were made in this city last month of two men

charged with illegal sale of cocaine. Both of them had some of the drug in their possession when arrested. Customs officers raided a place which they say was a plant for turning crude opium into the article used by smokers and a wholesale depot for dispensing the drug throughout the eastern part of the country and as far west as Denver. They said it was the first opium factory ever raided in this city. At the same time another force visited a drug store which was under suspicion, where they found a number of cans or shells which contain opium as sold to smokers.

It is stated in a press dispatch from St. Paul that according to a statement made by internal revenue officers, the manufacture of smoking opium has been going on in that city and other large cities of the country since the winter of 1909, without restraint except in a few isolated cases and without federal regulation. "It was thought at first," says the dispatch, "that most of the opium smoked in this country was smuggled in, but this has always been denied by the customs officials. They have admitted that a certain amount of the drug was smuggled, but declared the bulk of it was manufactured in this country."

Reflected Sunlight Causes a Fire.

Official inquiries were completed on Monday into an outbreak of fire the previous forenoon in the window of a chemist's shop in Grangevans, N. B., occupied by Mr. Alexander Tweedie. It appears that the assistant had neglected, on leaving that morning, to draw the blind. The forenoon sun beat fiercely on the window, which was filled with dummie packages and samples of goods, backed up by two large exhibition bottles filled with carbon. These bottles acted as reflectors upon the cardboard packages, which became ignited. The discovery was early made by the tenants above, who raised the alarm. No water was available at the borough mains, as there has lately been a scarcity. Neighbors gave up what little they had stored overnight for domestic purposes, and this fortunately served to extinguish the fire. The stock in the window was destroyed.—*British and Colonial Druggist.*

Sunday Closing.

A number of the pharmacists of Sacramento, Cal., have made an agreement to close their stores every Sunday afternoon from 1 o'clock until 6. The parties to the agreement are: J. B. Stocker & Co., H. L. Yardley Co., Willis & Martin, Benj. Catlett, Anchor Drug Co., Geo. E. Knox, Casey & Dalton, Central Drug Store, Royce & Youngman, Camellia City Pharmacy, M. Sydenstricker, F. J. Quirin, A. B. Chandler, J. L. Lewis, Owl Drug Co., Geo. Z. Waite, Fred Kolliker and Thomas Bickle.

Five Episcopal Churches of Anacostia, D. C., have united in a movement to secure the closing of drug stores on Sunday, except for the sale of necessary medicines.

The pharmacists of Westfield, Mass., have agreed to close their stores at 9 P. M., excepting Monday and Saturday, when they will remain open until 9.30 and 10.30.

National Civic Federation.

A section on pure food and drugs has recently been established by the National Civic Federation. Its first meeting was held at the rooms of the New York Board of Trade and Transportation October 3d.

Among those present were Dr. Wiley, and Dr. E. Eliot Harris, of the committee on legislation of the American Medical Association.

Plans for bringing about uniform State legislation were talked of and President Seth Low of the Civic Federation was empowered to appoint a committee of fifteen to carry out the objects of the new department.

United Drug Company Meeting.

A meeting of the stockholders of the United Drug Company was held at Boston, October 3d to 5th. More than 2,500 persons were in attendance.

President Louis K. Liggett reported a prosperous year, and that the company was practically free from debt.

The officers were re-elected, the list being: President, Louis K. Liggett; vice-presidents, Louis Schreiner, James C. Brady and Fred S. Rodgers; treasurer, James C. McCormick; secretary, C. E. Murman; corporation counsel, Jones Fuller.

National Wholesale Druggists' Association.

The thirty-seventh annual convention of the National Wholesale Druggists' Association was held at the Hotel Astor, this city, October 10th to 13th. The sessions were largely attended, and the entertainment features planned under the direction of Thomas P. Cook, chairman of the committee on arrangements and entertainment, were most enjoyable.

The convention was called to order at 10.30 a. m. by Dr. William Jay Schieffelin, president, who introduced the Hon. John Purroy Mitchel, President of the Board of Aldermen, who delivered a hearty address of welcome, to which response was made by ex-President William A. Hover, of Denver, Colo.

Thomas P. Cook, chairman of the delegation from the American Pharmaceutical Association, extended the greetings of that organization, and response was made by ex-President Thomas F. Main, of New York. The greetings of the New York State Pharmaceutical Association were extended by S. V. B. Swann, of New York, to which response was made by ex-President Charles S. Martin, of Nashville, Tenn. The greetings of the Maine Pharmaceutical Association were extended by A. B. Hodsdon, of Portland, and response was made by George W. Lattimer, of Columbus, Ohio. The privileges of the floor were given to the visiting delegates.

First Vice-President George W. Lattimer, of Columbus, Ohio, took the chair, and President Schieffelin read his address.

PRESIDENT'S ADDRESS.

The president briefly referred to the fact that the association was meeting for the fourth time in this city and expressed his appreciation of the compliment paid him in the association coming this year to his home. He noted the effort being made to promote arbitration between governments, the decisions in the Miles Medical Company case, the Standard Oil Company and American Tobacco Company cases; and the Johnson case; and the effort to oust Dr. Wiley. He spoke of the Foster bill and the probability of further efforts in the next congress to secure proper regulation of interstate traffic in narcotics, expressing his belief in the unanimity of the association for the passage of an effective bill. He mentioned as one of the most important measures pending in congress the proposition to establish a National department of health. From the best information he had been able to obtain he concluded that the wholesale drug business throughout the country had been fairly good during the past year.

The address was referred to a committee, as usual, and was subsequently endorsed by the association.

Dr. Francisco Herrera, secretary of the National Association of Pharmacists, of Cuba, was invited to address the convention, and he extended the greetings of that association. President Schieffelin thanked Dr. Herrera and returned the greetings.

MEMBERSHIP.

The report of the committee on membership showed five applications for active membership and twenty-six for associate membership.

REPORT OF THE SECRETARY.

Secretary J. E. Toms presented a report detailing the various activities of his office. The active members of the association up to March, 1911, numbered 260 and the associates 262.

REPORT OF THE TREASURER.

Treasurer Strong reported that the receipts of the association for the year from dues had been \$18,600.93; from other sources, \$1,493.36; which with a balance of \$8,197.17 from the previous year had made the assets \$28,291.46. The expenditures had been \$19,115.62, leaving a balance of \$9,175.84.

CREDITS AND COLLECTIONS.

The committee on credits and collections reported that it had received 146 replies to its general letter sent out with questions that were more or less pertinent to the affairs of the wholesale drug business. It had developed from these replies that general trade conditions in this country were, during the present year, somewhat varied. Twenty-eight per cent. report that general conditions are below normal, 42 per cent. fair to normal and 30 per cent. above normal. In perusing these replies carefully, it is perfectly evident, says the report, that the differences are governed entirely by local conditions. One class of wholesalers report from the cotton belt, another from the grain

and wheat fields, another from the mining districts and another from the fruit belts. The average, however, is slightly below normal. In the matter of industrial disturbances during 1911, only twenty cities report having suffered in any way by strikes, lockouts, etc. The greater portion of those reporting state that the strikes have not been serious, and generally of short duration. Many interesting details were given as to trade practices.

COMMERCIAL TRAVELERS.

The committee on commercial travelers had been broadened in scope at the 1910 meeting of the association to include selling methods. The chairman, Mr. Theo. M. Meyer, had not found it possible to take up the details of gathering information, but submitted some thoughts on the subject coming within the scope of his committee. He was of opinion that selling methods were left entirely too much in the hands of salesmen. They should be developed in and promulgated by and be under the control of the house.

DRUG MARKET.

An extended report on the drug market was presented by Dr. Adolph W. Miller, for the committee on that subject. Causes were specified for abnormal advances in the prices of certain drugs.

ADULTERATIONS.

In the report of the committee on adulteration it was said that the various efforts to prevent adulteration were being crowned with increasing success. It was believed that most of the trouble still encountered was due to the ignorance of some collectors of indigenous drugs. "A very thorough and complete investigation," says the report, "by personal interviews and correspondence with government and State officials, manufacturers and dealers throughout the country was made in an effort to get the true condition of the drug trade at this time regarding adulterated drugs. As a result we are forced to the conclusion and take much satisfaction in reporting that conditions at this time are very satisfactory and full of encouragement and hope." The presentation of this report was followed by an address, on drug cultivation by Dr. Rodney H. True, of the federal bureau of plant industry.

DECEASED MEMBERS.

The committee on memorials of deceased members reported that during the year the association had lost through death thirteen of its active members and six associates.

LEGISLATION.

The legislative situation was summarized in an exhaustive report of the committee on legislation. The committee offered the following resolution for consideration:

Resolved, That this association is opposed to the enactment of any parcels post legislation, either local or general, firmly believing as we do that the effect of such laws would be to divert the business of the country merchant and tradesman in small cities and towns to large retail departments and catalogue houses in the large cities, to the great detriment of community life throughout the entire country.

This resolution was adopted by the association.

The reports of the various committees mentioned above were adopted. Other reports made and approved were on paints, oils and glass, fire insurance, local associations, transportation, trade-marks, suits against members, and proprietary goods.

Prof. Remington made an address on the forthcoming Pharmacopoeia.

OFFICERS.

Officers for the ensuing year were elected as follows: President, Theo. F. Meyer, of St. Louis; first vice-president, James W. Morrison, of Chicago; second vice-president, Miers Busch, of Philadelphia; third vice-president, F. C. Groover, of Jacksonville, Fla.; fourth vice-president, Levi Wilcox, of Waterbury, Conn.; fifth vice-president, M. P. Northington, of Birmingham, Ala.; secretary, Joseph E. Toms, of New York city; treasurer, Samuel E. Strong, of Cleveland, O. Board of control, Charles Gibson, of Albany; W. B. Strong, of Milwaukee; C. E. Bedwell, of Omaha; A. J. Geer, of Charleston, S. C.; George R. Merrell, of St. Louis.

The association will hold its next annual meeting at Milwaukee, Wis., in October next, the day to be fixed by the committee of arrangements.

Another Riker-Jaynes drug store was opened September 23d, at Boston; the fiftieth in the "chain" of that company. It is quite a large one.

Meetings of American Pharmaceutical Association Branches.

Baltimore.—Discussions of the proposed changes in the Pharmacopœia and the National Formulary comprised the business of the meeting of the Baltimore branch of the American Pharmaceutical Association held October 19th.

The discussion was begun by Prof. Charles Caspari, Jr., who, after explaining the method of procedure followed by the pharmacopœial revision committee and the various sub-divisions thereof, said that many of the proposed pharmacopœial additions and deletions did not have his approval. He could not see the reason for dismissing fluid-extract of rose and retaining the unstable fluid-extract of coca, and he feared that the admission of so many new fluid-extracts into the National Formulary foreboded slackness in the making of tinctures. He characterized as unwise the proposed deletion of compound syrup of hypophosphites and similar much-used preparations.

H. A. B. Dunning reviewed the work of revising the National Formulary, and told of the care with which the N. F. committee was approaching the several phases of its work.

M. I. Wilbert, of Washington, D. C., said that for the N. F. committee, he was sending out copies of proposed formulas and processes for experiment and criticism. He urged every member of the branch to co-operate in the work of revision, and suggested that the branch devote its meetings to the consideration of the proposed formulas.

This suggestion was concurred in; and the executive committee was instructed to make the necessary arrangements.

Nashville.—The new president, J. O. Burge, was installed at the meeting of the Nashville branch of the American Pharmaceutical Association held October 19th. After the several committees had been appointed, J. R. McDaniel, for the program committee, announced the proposed schedule for the season's meetings.

Several other committee chairmen outlined the plans they proposed to carry out.

Reports were made on the past year's meetings of the national organizations as follows: American Pharmaceutical Association, by J. O. Burge; American Chemical Society, by L. J. Desha; National Association of Retail Druggists, by W. R. White; and National Wholesale Druggists' Association, by J. R. McDaniel.

New York.—Routine matters were dispensed with at the meeting of the New York branch of the American Pharmaceutical Association held October 9th, in order that the list of proposed admissions to and deletions from the Pharmacopœia might be considered in detail. The lists as printed were read by Secretary Hugh Craig, the admissions being first considered. The comments follow:

Ammonium bifluoride.—This is used but little and then often with bad results.

Aspidospermine.—It would be better to make quebracho bark official.

Calcium chloride (hydrated crystals).—Two forms of this salt are unnecessary and the hydrated can be kept but a very short time.

Diastase.—This, it was believed, is used very little, and a pure article is obtained with difficulty.

Erythrol tetranitrate.—This is dangerous to handle, being explosive, and is not used to any great extent.

Mercury salicylate.—There was a question as to what sort would be recognized; and the suggestion was made that the official form should be a very fine powder.

Milk of magnesia and *milk of bismuth.*—In this connection the use of trade-marked names was commented upon. The recognition of a method for the assay of these preparations was considered advisable.

Oxygen.—It was pointed out that a standard was necessary for medicinal oxygen and that an official method for its examination should exist.

Picric acid.—The fact that the shipping of this substance is surrounded with rigid specifications and is unduly expensive was pointed out.

Phenolphthalein.—It was suggested that the melting point of this substance be carefully determined. It was also considered advisable that the sulphonated salt be given official recognition.

Pine needle oil.—A question arose as to which variety was meant.

Potassa sulphurata.—The question of its standardization

was brought up. Its liability to deterioration and the simplicity of its manufacture were pointed out.

Quinine and urea hydrochloride.—The fact was noted that this salt turns gray very quickly.

Saccharin sodium salt.—Some discussion took place as to the propriety of recognizing this substance, and its extensive use in pediatrics was pointed out. There was a question as to why the sodium salt was selected, as the ammonium salt is preferred in Germany.

Uranium nitrate.—The question was asked: Why the nitrate was preferred to the acetate.

On motion the branch disapproved the admission of the following substances: Ammonium bifluoride, calcium chloride in hydrated crystals, diastase, erythrol tetranitrate, and the sodium salt of saccharin.

Several members asked why the revision committee did not purpose to admit ichthyol, piperazine, and chromium sulphate, all widely used substances. The fact that ichthyol is a patented substance was one answer.

Next were considered the proposed deletions, with the following comment:

Sulphurous acid.—Because of its popularity, this substance was favored for retention.

Aluminum sulphate.—This it was thought should be retained because of its extensive use, particularly in making solution of aluminum acetate.

Extract of digitalis.—It was considered that this preparation was more stable than the crude drug, besides being much used.

Extract of sumbul.—This was referred to as the most active preparation of musk root.

Ethereal oil.—In this connection arose the question as to what is Hoffman's anodyne, Hoffman's drops, etc. There seemed to be a quite even division as to whether the simple or the compound spirit of ether was meant. The retention of the oil was favored because it would continue to be prescribed.

The branch voiced an official protest against the deletion of the following: Sulphuric acid, aluminum sulphate, cataplasm of kaolin, cerate of lead subacetate, cerium oxalate, extract of digitalis, extract of sumbul, fluid-extract of digitalis, glycerite of iron, quinine and strychnine phosphates, lithium benzoate, lithium salicylate, rhubarb and soda mixture, ethereal oil, potassium sulphate, santonica, scammony, sodium nitrate, compound spirit of ether, syrup of iron, quinine and strychnine phosphates, compound syrup of hypophosphites, tincture of cardamom, tincture of ipecac and opium, tincture of fresh plants, santonin troches, ointment of galls, ointment of red oxide of mercury, ointment of potassium iodide, viburnum opulus, white wine, and red wine.

There was considerable general discussion of the proposed deletion of wines.

Mr. De Jonge said that many had reported to him their failure to make a standard tincture of opium from the granulated drug. He favored the use of the extract in making the tincture.

Mr. Murray sought information as to whether the preface of the Pharmacopœia would continue to state the limitation of the application of the standards to medicinal substances.

The opposition to a "skeleton" Pharmacopœia was strong. It was believed that to transfer the formulas for the much used compounds to the National Formulary would be to weaken the arguments of the propagandists for official medicaments.

Those participating in the discussion were Messrs. Raubenheimer, Diekman, Murray, Lehman, Mayo, Weinstein, Von Oefels, Arny, Niece, Mayer and Roemer, Chairman Hitchcock, and Secretary Craig.

A vote of thanks was extended to the U. S. P. revision committee for making public the lists of proposed admissions and deletions.

During the meeting Dr. Francisco Herrera, secretary of the Cuban National Association of Pharmacists, was introduced by Mr. Mayo, and told how the Havana organization protected the prices of specialties.

Philadelphia.—The reporting of the proceedings of the various National and leading State organizations in pharmacy and the collateral pursuits at their 1911 meetings made up the business of the meeting of the Philadelphia branch of the American Pharmaceutical Association, held October 13th.

Prof. J. P. Remington made a written report on what

had been accomplished by the American Pharmaceutical Association. Prof. C. H. La Wall reviewed the work of the Pennsylvania Pharmaceutical Association. G. M. Berlinger discussed the recent annual meeting of the New Jersey Pharmaceutical Association. And Dr. F. E. Stewart told of his visit to the 1911 meeting of the American Medical Association.

At the subsequent session of the scientific section, W. A. Pearson reviewed the work of the American Chemical Society. E. Vanderleed reported on the scientific features of the American Pharmaceutical Association's meeting; and C. G. Brinton reviewed the recent progress in methods of food analysis.

A resolution was adopted addressed to Governor Tener, endorsing L. L. Walton, of Williamsport, the present secretary of the Pennsylvania Board of Pharmacy for re-appointment to succeed himself as a member of the board.

Future meetings of the branch will be held on the first Tuesday of each month.

Co-operative Concern Refuses to Comply With N. A. R. D. Resolution.

At the recent meeting of the National Association of Retail Druggists a resolution was passed calling on the executive officers of each co-operative druggists' concern to give N. A. R. D. headquarters a statement of its financial condition. This action is of particular interest in Philadelphia because it is the home of the Philadelphia Wholesale Drug Company, probably the largest and best organized commercial association of retail druggists in the country. Although this concern has always been in most friendly relations with the National Association of Retail Druggists, its president and general manager, Frank R. Rohrman, has declared that he certainly would object to giving out any such information as that specified in the resolution. He declared that it had always been the policy of the management of the Philadelphia Wholesale Drug Company to furnish to individuals or organizations of retail druggists in cities and towns all over the country detailed information as to the methods, membership and policies of the company which would be of value to them in forming similar organizations for commercial purposes. "But information as to the financial condition of the company," he continued, "in my opinion is for the stockholders alone, and I certainly am opposed to following the course outlined in the resolution on that subject adopted at the 1911 convention of the National Association of Retail Druggists. It is against all business principles, and while the plan may have merit in its application to some enterprises in which retail druggists are interested financially, as far as the Philadelphia Wholesale Drug Company is concerned I am not in favor of it."

Raising the Grade in North Dakota.

The pharmacy law of North Dakota has been so amended that on and after January 1st, 1913, the qualifications for registration will include three years' experience and at least one year of work in an approved school or college of pharmacy; and on and after January 1st, 1915, two years' experience and graduation from such college will be required. The board is authorized to determine what shall constitute an approved school or college of pharmacy, but none shall be approved unless it shall furnish by a competent faculty of instructors a course of instruction for a full two-years' course of not less than six hundred hours given to lectures and recitations and two hundred hours given to laboratory work in the following subjects: Physics, chemistry (general qualitative, quantitative, organic), pharmacy (theoretical, practical dispensing), materia medica (physiology, therapeutics, posology, toxicology), botany, microscopy and pharmacognosy. Said course of instruction is to consist of not less than two terms in separate academic years of not less than thirty-two weeks of five days each for each term.

The law does not apply to trained nurses or persons in charge of laboratories or chemical departments of public hospitals when acting or engaged in the discharge of their duties as such.

"When you want medicine bad you want it good—get it also pure—in other words get it at Winger's." Thus does Winger's Drug Store, Euclid and Fifty-eighth street, Cleveland, O., advise the public.

Picturesque Description of One Drug Clerk.

Some hard things have been said about drug clerks—who are really about as fine a set of young fellows as one need wish to know—but what follows takes the rag off the bush, whatever that means. An unregistered man found himself in possession of a drug store in Pennsylvania and had some difficulty in getting a clerk for the salary the business could afford to pay; and he also had some difficulty with the board of pharmacy on account of conducting his business without a registered clerk in charge. In a letter to the secretary of the board he relates how he wired for a clerk—but let him tell his own story:

He came, and he was the most disreputable specimen of humanity that I ever saw. He came on a freight and had a collar on that had once been white and a shirt that had not been washed since the civil war. A pair of pants that when new would have been dear at \$1.25, one leg of those had been torn off about six inches above his shoe and the frayed edges were hanging, and I guess the other leg must have shrunk, because it was four inches above a pair of ily mated shoes without laces, a pair of dirty calves entirely innocent of socks, wore an old brown derby hat of the style in vogue fifteen years ago and had a coat that had belonged to some boy about twelve years of age. Now add to that picture a lean, hungry face, covered with about six weeks' growth of dirty, wiry beard, place in that face two eyes that resembled nothing more than two burned holes, caused no doubt from the use of dope, and you can imagine that I was some disappointed in the appearance of my clerk. I was also a little disgusted and some disappointed, and I asked the fellow what he thought I was running, a tramp's home or a hospital for incurables.

Well, to tell the truth, I was sorry that I said that to him, and all during his three months' stay in town I tried to make it up to him. He secured a job in a livery stable as chambermaid and wore the very same clothes all of the time, even to the same shirt, and was the butt of everyone. Well, at last he quit and bought himself some fairly respectable clothes, took a bath, bought some blue ointment, etc., got shaved and looked quite like a human being. He had more than enough money to buy the uniform, because he paid \$7 board at a hotel for three weeks after quitting his job, and during that time made no effort to secure work.

When he was all in he came to me again and offered to work for \$6 per week. I told him as kindly as possible that after working at the work in the livery stable that I could not hire him in my store. You know yourself that you would not do it. While I don't consider it any disgrace to work in such a place, that in a small town it would not do to place him in a drug store. I tried to get him another job, and he came in two nights later and wanted to pawn an old pair of glasses and a 50-cent ring for \$5 to get away from town on. I refused to take the junk but gave him 50 cents and told him he ought to be able to get the dollar necessary to pay his fare from the places that he spent his money, but he came back and shed some few tears and I gave him a dollar more.

Now that is the man who took it upon himself to inform on me. I don't hardly think the fellow did it of his own accord. I think that he was hired by a fellow who has even less right to be considered a man than he.

L. J. Cohen, once secretary of the Brooklyn Pharmaceutical Association, has returned to Baltimore and opened a store at 1105 Columbia avenue.



The Drug Clerk's Thanksgiving Dinner.

New York German Apothecaries' Society's Jubilee.

The sixtieth anniversary of the New York German Apothecaries' Society was celebrated by two festivals, the first a kommers and the second an entertainment with banquet and ball.

The kommers was held September 28th in the banquet hall of Terrace Garden, and was attended by more than 250 members and friends of the society. Among the distinguished guests were: Prof. Jacobi, the nestor of the German physicians in New York and president of the American Medical Association; Mr. McAneny, president of the borough of Manhattan; Mr. Sutro, president of the United German Societies; Prof. J. P. Remington, of Philadelphia; Prof. J. V. Lloyd, of Cincinnati; and Prof. H. P. Hynson, of Baltimore.

The kommers was opened and presided over by Dr. W. C. Alpers, who after extending a hearty greeting to all those present, introduced as speaker the honorary president of the society, Gustav Ramsperger, the only survivor of the twenty-five founders of the society. Mr. Ramsperger in a short address expressed his wishes for a happy and prosperous future for the society. In behalf of his fellow members C. F. Schleussner presented to Mr. Ramsperger a handsome loving cup bearing this inscription:

1851—1911

GUSTAV RAMSPERGER

Gründer und Ehren-Präsident

des

New Yorker Deutschen Apotheker-Vereins

zum

sechzigjährigen Jubiläum.

Prof. Jacobi was next introduced and gave a brief sketch of the practice of medicine during the last sixty years.

Dr. Alpers then made the jubilee speech.

Prof. Hynson, the next speaker, paid tribute to the influence the German pharmacists had had on pharmacy, not only in New York, but throughout the United States. His words were corroborated by Prof. Lloyd and Prof. Remington, the latter also mentioning the great number of German pharmacists who were at present members of the pharmacopœial committee of revision. Prof. Remington also spoke of the good fellowship or "gemüthlichkeit" so characteristic of the Germans.

Certificates as honorary members were presented to Profs. Jacobi, Remington and Lloyd by the presiding officer, Dr. Alpers. Although the proceedings of the society are conducted in the tongue of the Fatherland, Dr. Alpers, in addressing Profs. Remington and Lloyd, spoke in English, saying:

The pleasing and cheerful words that you have just addressed to us have gone to our hearts, and come back from there like a joyous and responsive echo. It is not often that we have Americans as prominent in pharmacy as you two, among us. Our society is a German one, and the official language here is the German tongue. We watch over German features and are proud of them, not because we dislike the English language, nor because we think less of things American. Our daily surroundings, our aspirations, our hopes in business, as in social matters, in fact all our daily activities are American, and we are Americans in every sense of the word. Indeed, no one may become a member of this society unless he is a citizen of the United States.

If yet we cling to German customs, we do so because our meetings are a refuge from our daily toil. Here we come back to the days of our youth; here we find that recreation that is needful to us; here we once more revel in those ideals which fill so completely the heart of the German youth; and we believe this change in language, this change in thought, this return to days long past and never to be recalled, gives us strength and encouragement, and in the enjoyment of German "gemüthlichkeit" we find ample recompense for our daily duties. And more than this, the intercourse between German and American civilization has increased from day to day during the last few decades. We have prized it here for sixty years, and we are proud that the spirit that has kept this society alive and made it grand, and given it influence and importance, has added greatly in bringing together the scientific bodies of the two great nations. To us Germans our new country is our bride, for whose life and honor we are ready to sacrifice all we have, but in our loyalty and affection for her we will never forget our loving mother across the sea, and always have ready for her a resting place at our hearth.

It is in this feeling of pleasure and pride that we welcome you tonight in our midst, you whom we believe to be the two most typical representatives of American pharmacy. You both have risen from the low position as apprentice in a drug store to high places in our profession. You, Joseph P. Remington, as chairman of the committee of the revision of the Pharmacopœia, have attained what I consider the highest honor that

American pharmacy can confer. And you, John Uri Lloyd, have gained an international reputation as scientist and author, and in commercial pursuits have not forgotten the sweeter and gentler sides of human nature, and depicted them in a masterful way in your beautiful novels.

It is, therefore, in this spirit of pride and friendship, which goes out from us to you, that we have decided to confer upon you both the honorary membership of the German Apothecaries' Society. We want to emphasize herewith our loyalty for American pharmacy and our admiration for American science. We want to have it understood that we are American in heart and soul, and further, we want to give expression to our personal admiration and love with which our hearts go forth to you as the best men that American pharmacy has produced. And finally, speaking in a broader sense, we wish to accentuate the bonds of friendship that exist among scientific men of the two nations, Germany and the United States, that broad and noble friendship which alone makes for high civilization, for better knowledge, for better understanding of all that is grand and ennobling in either country and that brings the two great nations closer and closer together in a common purpose. It is in this spirit that I hand you these diplomas, and I know that you will accept them in the same way.

Felix Hirseman then reviewed in detail the history of the society during the last sixty years.

Mr. Hauser concluded the speech-making part of the evening with a humorous address in which he spoke about sixty years of being a customer of druggists.

After these exercises the kommers proper came to its rights and many more pleasant hours were spent by the members. Vocal selections were rendered by several members, and by the Manhattan Male Quartette. A "bier-zeitung," containing caricatures of various members, and songs written especially for the occasion, had been prepared by Mr. Kantrowitz.

Those present were:

Henry F. Albert, Eugene Adler, Edward B. Amend, Adolph Amend, Carl G. Amend, Otto P. Amend, Philip C. Ackerman, William C. Alpers, K. Aschenbrand, Paul Arndt.

G. W. Blanchard, F. W. Baimers, William F. Brandt, C. A. Buchbinder, H. H. Blomeier, E. W. Ditrich, George Bley, Eugene F. W. Becker, Ernst A. Boetzel, Eric L. Boetzel, Ludwig Balles, Ernst A. Boettcher, Ernst Bilhuber, George Bruns, Henry Buch, H. E. Benedix, Henry J. Binder, Jr., A. Berg-haus.

Clarence G. Clark, Alfred I. Cohn, Hugh Craig, Dr. A. Cam-mitzer, B. C. Chatillon, Bruno R. Dauscha, John Dreyer, August Diehl, Wilhelm Dreves, Herbert C. Dienst, L. Wm. De-Zeller, George S. De Lacy, Clarence O. Douden.

August Eimer, H. E. Eisentrager, A. J. Franz, Edward Fuehrer, F. S. Frankfurter, Carl Fuchs, John C. Gallagher, Richard Gaupp, Paul F. Gebicke, Otto P. Gilbert, W. P. Gregorius, Leo W. Geisler, Sr., Leo W. Geisler, Jr.

F. E. Holliday, Felix Hirseman, Max Hirschberg, Hans-Houhlar, August E. Hahn, C. J. Heterheine, J. Joseph Herbert, F. F. Angelo Haase, G. E. Heuther, Eugene R. Hynard, H. P. Hynson, Carl Hauser, Robert Hahn, John Hundt, William Ise-mann, Adolf Imhof, Henry Jansen, Richard Jorgenson, H. V. Jarchow, D. A. Jacobs.

George Kleinau, Hugo Kantrowitz, W. A. Kempf, W. C. Koehler, Emil C. Krausche, William Kamiah, Carl Klippert, Charles A. Kalish, Ad. Klein, Dr. E. G. Kessler, H. C. Koehler, C. Khuen, Albert Koehler, E. J. Kennedy, A. A. Kirschner, E. Kuehnehan, P. Kneufel, Armin C. Krapf, John Krack, Julius Krause, Julius Kramer.

Otto A. Leister, M. E. Lippold, H. F. Ludermann, Frederic-Linnig, Otto Lenz, E. H. Lubbers, Henry C. Lovis, Robert S. Lehman, Fred Lange, John U. Lloyd.

Edward A. Mueller, Edward Miller, Louis Moes, Otto Maier, Charles H. Mierrow, C. A. Mayo, Philip Matty, Adam McKenna, F. L. McCartney, Woldemar Nemser, John Oestreich, Franz Olyvet.

Fred H. Plate, G. F. Phillips, F. A. Plump, Theo. Pundt, A. Plumpton, C. W. Parsons, Otto Raubenheimer, H. Kehse, Ernst F. Ruppe, Herman Reaske, Emil Roller, William Raabe, G. T. Rieffli, George Rodemann, Joseph Rupprecht, William Roschen, Louis Riegel, Gustav Ramsperger, Joseph P. Remington.

S. V. B. Swann, John A. Schmitt, Alfred Schletter, Robert L. Seifert, C. F. Splittoir, F. P. Schmidt, Carl Stroening, K. Schoenfeld, Carl Schur, Fred. Schaefer, W. L. Schultz, S. Schoenfeld, W. A. Schmidt, G. E. Schneider, C. H. Schmidt, Herman Schmelz, Adolph Schmidt, Henry Schierer, J. A. C. Stadler, Emil Schultz, Harry J. Schumacher, F. H. Sieman, H. Sellheim, F. W. Stechmann, Theodor Sutro, C. F. Schleussner, G. C. P. Stolzenburg, Frederic J. Suhr.

R. H. Timmermann, Philip Toussaint, Fred Trau, Otto Ull-rich, Gustav Unger, W. E. Vogt.

David Westheimer, Carl Wippermann, Fred H. Weyer, Carl Wiebing, L. Watermuelder, Herman Walter, Joseph Weinstein, Herman Weller, C. W. Wagner, J. Weidenfeld, C. P. Wimmer, R. C. Werner, John W. Wurthmann, John F. Wurthmann, J. E. Willis, Theodore Werner, W. H. Weygandt, Charles F. Zinckgraf, and John H. Ziegler.

BANQUET AND BALL.

An evening entertainment with banquet and ball which was given at the same place on the evening of October 12th, concluded the celebration. The musical part of the elaborate program for this occasion was in the hands of the Lederhaus orchestra, the Manhattan Ladies' Quartette, and Miss Kirmse, a harpist, while Miss Frey and the comedian, Mr. Stolberg, gave humorous recitations.

An elaborate dinner and dance, which followed the enter-

tainment, kept the members and their friends together for many more hours. Among the guests present were Ewan McIntyre, honorary president of the College of Pharmacy of the City of New York; Mr. Lascoff, president of the New York County Pharmaceutical Society, and Mr. Calcagno, of the New York Italian Pharmaceutical Society.

The committee in charge of the jubilee celebration was composed of O. P. Gilbert, H. F. Albert, Dr. W. C. Alpers, E. C. Goetting, Felix Hirseman, H. Jarchow, Hugo Kantrowitz, Dr. C. F. Klippert, R. S. Lehman, G. Leinecker, G. T. Riefflin, C. F. Schleussner, and S. V. B. Swann, and to these members much praise is due for the success of the occasion.

Regular Meeting of the G. A. S.

The regular monthly meeting of the society took place October 5th, President Kleinau in the chair.

O. P. Gilbert reported on the special meeting held September 28th, in which Profs. Jacobi, Remington and Lloyd were unanimously elected honorary members of the society.

After the regular routine business had been disposed of, President Kleinau reported that the New York board of health had brought charges against several druggists, who were said to have used tartaric acid instead of citric acid in manufacturing solution of magnesium citrate. Prof. Wimmer, of the College of Pharmacy of the City of New York, Columbia University, at the request of President Kleinau, then gave some interesting details about the manufacture of this preparation. His lecture was received with much applause, and was then thoroughly discussed by Dr. Alpers, Dr. v. Oefle, Mr. Raubenheimer, Dr. Drobegg, Mr. Roller, and two attorneys-at-law, Messrs. Kalish and Herrold.

After President Kleinau had thanked Prof. Wimmer for his lecture, on the recommendation of Mr. Schaefer a committee of five members was elected for the purpose of nominating candidates for the executive force of the society to be elected at the December meeting. Messrs. Schaefer, Hirseman, Swann, Diehl and Schleussner were chosen as members of this committee.

After, by request of Mr. Swann, the society had thanked Messrs. Alpers, Kantrowitz, Riefflin and Gilbert for the excellent work they had done in arranging the details of the fest-kommers, the meeting adjourned.

Kings County Society.

A well attended meeting of the Kings County (N. Y.) Pharmaceutical Society was held on the afternoon of October 10th, President Douden in the chair.

Treasurer Paradis reported that the balance of the society was \$487; and of the college over \$16,000.

The principal subject considered at the meeting was the proposed changes in the Pharmacopœia. A list of the articles which it proposed to drop and of those to be added had been sent to the members several weeks in advance of the meeting and suggestions in writing invited from those who might not be able to attend.

Mr. Raubenheimer (who is a member of the revision committee) explained the procedure as to the formation of the list referred to. A discussion of the list followed, the result of which was the voicing of objection to some of the proposed deletions, and of some of the proposed admissions, and the suggestion of still other articles for admission.

An Extended Course in Pharmacy Fails of Support.

Fordham University, of this city, proposed to establish this season a department of pharmacy in which the courses were to extend over three and four years, respectively. A great number of persons seemed anxious to enter, but when the conditions became fully known, failed to do so. Great pressure was brought to bear on the officers to reduce the time, but they held to the view that it was better to have no pharmacy department at all than one which would not establish such a standard as they had contemplated.

D. Ullamena, lately manager of Legal's stores on Third and Seventh avenues, this city, has purchased Maschini's store at One-hundred-and-fifteenth street and First avenue.

Westchester County Association.

A regular quarterly meeting of the Westchester County (N. Y.) Pharmaceutical Association was held at Tarrytown, October 11th. The attendance was a trifle below normal.

After the reading and approval of the minutes of the summer meeting, and the reading of several communications of regret from members unable to attend, the reports of the standing committees were heard. W. H. Leonard, of Tarrytown, reported that no matters had been brought to the attention of the executive committee.

For the committee on registration, J. M. McCullough, of White Plains, told of the last moments of the recently attempted Turley bill. He voiced the opinion that there would be other attempts to enact a similar measure. F. A. Russell, of Tarrytown, said that the committee should keep in close touch with the legislative committee of the State association.

Mr. Russell also presented the facts of the existing telephone conditions. The operating company he had found to be opposed to paying better commissions because the toll rates had been reduced by the public service commission. He advised his hearers to refrain from signing any new contracts until the company was willing to concede better terms. If, said he, the druggists would make it plain that they must be paid for their services to the telephone company something more than the ridiculous commission of 10 per cent., and would refuse to put in slot machines until a better compensation was forthcoming, the company would come to terms. Mr. Russell advised working in co-operation with the telephone bureau of the National Association of Retail Druggists.

This report was adopted with every show of approval for the sentiments expressed.

Robert Boyd, of Tarrytown, was elected a member of the association.

President John Roemer, of White Plains, presented a communication on the relation of the pharmacy law to manufacturers, wholesalers, and physicians' supply houses. To begin with, he found fault with that portion of the law which requires retailers to sell only standard preparations under official names but permits wholesalers and manufacturers to sell deficient preparations if they be so labeled. This, he said, permits jobbers to unload spurious goods on unsuspecting dealers who have no redress if they pass out the same goods. As an instance he told of purchasing some extract of vanilla represented to be U. S. P. quality. The container was not labeled as to the alcoholic content, and the maker told him it contained but 47½ per cent. of alcohol. He estimated the alcohol present at 6 per cent. When he asked the manufacturer why the label was deficient he was told that the law did not apply to vanilla extract. The law, declared Mr. Roemer, should give to retailers the same privileges enjoyed by wholesalers, and the Westchester association should work to have such equality brought about.

This occasioned some discussion as to the best way in which to secure the desired changes in the law. Hugh Craig, of THE DRUGGISTS CIRCULAR, explained the manner in which the State association by conference under the auspices of its legislative committee received and considered the legislative desires of local organizations. Mr. McCullough expressed his willingness to bring the matter before the State association. At the suggestion of Mr. Barr he will see that Mr. Roemer's communication goes before the State committee.

Relative to the position of the physicians' supply houses Mr. Roemer told of his experience with one of these concerns. Having learned from his physician neighbors of the cheapness of this firm's wares he ordered through its traveler some aromatic spirit of ammonia, spirit of nitrous ether, spirit of nitroglycerin, fluidextract of belladonna root, compound spirit of ether, and tablets of strychnine. The compound spirit of ether was not supplied. The spirit of nitrous ether assayed 25 per cent. below standard; and the aromatic spirit of ammonia was only about two-thirds official strength. After much correspondence with the house, with evasion and delay on its part he told the representative that the house was crooked, and the matter was closed apparently for all time.

From a manufacturing house Mr. Roemer bought solution of aluminum acetate which was purported to be of N. F. quality. It assayed but 6 per cent. of basic aluminum acetate; and his inquiries of the manufacturer led to the fact that barium carbonate was used instead of calcium carbonate, and that the manufacturer was not sure of the

strength of the finished product. He said that his view of the trustworthiness of the average manufacturing house was pessimistic. And he had known where a physician required seven quarter-grain hypodermic tablets of morphine sulphate of a certain make to get the desired result.

He called upon the association to consider and endeavor to correct these matters.

From 2:15 to 3:45 p. m. the meeting was adjourned while those attending enjoyed dinner.

The next meeting will be held at Yonkers, January 10th.

New York County Society.

At the meeting of the New York County Pharmaceutical Society held October 11th in this city, Prof. George C. Diekmann lectured on the subject of "The Testing of U. S. P. Substances." There was a fair attendance and all present listened with the greatest attention to Prof. Diekmann, who showed how comparatively easy it is to ascertain the quality, purity and strength of most of the pharmacopœial substances by simple tests. He also emphasized the fact that if pharmacists made it a practice to test their preparations, they would often avoid serious annoyance and inconvenience.

Among the many interesting tests shown were those distinguishing calomel and white precipitate, beechwood creosote and coal-tar "creosote," and tannic and gallic acids. Several tests for coal-tar products and alkaloids were also shown.

After the lecture a discussion ensued and interesting remarks were made by Messrs. Raubenheimer, Latham, Weinstein, Holler, and Lascoff, all emphasizing the practical value of tests to pharmacists. The importance of having proper utensils, measures and weights as part of the equipment of every pharmacy was also declared.

The botanical outing which was to be held by the society October 22d, under the supervision of Prof. William Mansfield of the College of Pharmacy of the City of New York, was postponed because of the inclemency of the weather, and will take place in the near future.

Enforcing the Poison Law in Pennsylvania.

The Pennsylvania board of pharmacy is proceeding against dealers in paints and in chemicals used in the arts who are charged with selling these articles without complying with the poison law. About seventy-five warrants have already been served in the course of the crusade on dealers in Philadelphia.

L. L. Walton, secretary of the board, makes the following statement:

The Pennsylvania Pharmaceutical Examining Board took action looking to the strict enforcement of the State's poison statutes; vigorous prosecution will be made of all dealers who fail to comply with them.

Reports received indicate gross negligence upon the part of dealers in various parts of the State in selling the commonly used drugs and chemicals. The poison laws require that every drug, chemical or preparation liable to be destructive to adult human life in quantities of sixty grains or less must have affixed to the package sold a label upon which appears the word "poison," and the name and place of business of the seller. The dealer must satisfy himself that the poison is to be used for legitimate purposes before delivering the same. If the article is liable to be destructive to adult human life in quantities of five grains or less, then the dealer must also register the sale in a book kept for that purpose.

Sales of morphine, strychnine, prussic acid, arsenic and carbolic acid may only be made at retail to persons of legal age, who must be respectable inhabitants of the town or place in which the sale is made. Each of these articles when sold must be labeled "poison" and the sale entered upon a register kept for that purpose. The name of the article, name and residence of the purchaser, the quantity sold, the name of the person making the sale and the date thereof must all be entered in the register.

It is reported that many dealers who thus far had not been arrested on the charge of failing to comply with these restrictions have since been adhering strictly to the letter of the law, while some have been found who no longer handle the articles in question.

Hay's Drug Store, 501 Congress street, Portland, Me., has been purchased by its manager, Arthur G. Spear. This is a very old store, mention of which is made in the Golden Jubilee number of the CIRCULAR. It was established by A. G. Schlotterbeck, and was conducted by the Schlotterbeck & Foss Company and by Bowen & Turner before it passed into the hands of the Hay corporation.

Philadelphia College Meeting.

The first pharmaceutical meeting of the Philadelphia College for the season was held October 16th, W. L. Cliffe presiding.

It was occupied with a discussion of the proposed changes in the forthcoming Pharmacopœia. George M. Beringer, of Camden, N. J., opened the discussion with a paper entitled "The Pharmacists' Plea for a Rational Pharmacopœia." He was followed by Otto Raubenheimer, of Brooklyn, N. Y., who read a paper on "The Inconsistencies of the List of Proposed Deletions."

Chairman Remington explained that the list of additions and deletions made public was only tentative, and that already changes had been made therein. He also discussed the decisions of the International Congress at Brussels and declared that these findings did not necessarily mean that every Pharmacopœia should adhere to them. He advocated that every country should decide for itself the details of its pharmaceutical manipulation.

Harry P. Busch, representing the wholesale and manufacturing interests, discussed the question of having the Pharmacopœia contain standards for articles that are no longer in common use, as well as those being used regularly. The wholesale and manufacturing interests were steadily having calls for preparations that are generally regarded as obsolete, and the question was particularly pertinent in its application to the coming ninth revision because this would be the first revision since the government had adopted it as a standard. Consequently, he stated, the manufacturers were bound to observe its standards and that therefore standards for articles no longer in general use should be maintained for the guidance of these interests. He expressed the belief that standards, once created, should be retained owing to the relation of the Pharmacopœia to commercial interests.

In the opinion of Prof. Henry Kraemer, the test of a Pharmacopœia was the getting rid of the obsolete, and he declared no previous revision compared in this respect to the ninth. The medical interests, he said, wanted a small book so that the attention of the younger practitioner could be directed to a limited number of preparations which he could use. The attention of pharmacists, he explained, was centered on processes with the result that every Pharmacopœia had to be in the nature of a compromise to conform with the views of the government, the physicians, the pharmacists and the manufacturing and wholesale interests. "And I know," he continued, "that excellent work is being done by Chairman Remington in his committee to satisfy all of these interests. I can safely say that we are only at the beginning of this work on the ninth revision, and that it will be generally satisfactory. The chairman is to be congratulated on the work as it has been carried on up to this time."

Another member of the committee on revision, Dr. H. C. Wood, Jr., declared that not enough articles had been left out of the Pharmacopœia. "As physicians," he said, "we want a book that will represent the forefront of medical practice. It should be primarily a book of medicine, and I am convinced that the things dropped from the Pharmacopœia will cease to be prescribed. The government simply adopted the Pharmacopœia because there was no other standard."

In closing the discussion, Chairman Remington declared that the present committee was the most representative that had ever undertaken the work of revision. "Most of my gray hair," he said, "has come in the last year, but I want to say that at last we have gotten all of our ideas together. We are always glad to hear comments and receive suggestions, but now we want to stop criticisms of our work, particularly when those criticisms are ancient and the point to which they refer has already been taken care of in some cases just as they suggest, but in any event entirely with the approval of the majority."

The president called attention to an exhibit of drugs and specimens which prompted some discussion. One of these specimens was a Barbadoes aloe, a portion of a shipment received by a local manufacturer, and the first received in many years from the Barbadoes which had really been raised there. It was explained that many had believed that the term "Barbadoes aloes" was a misnomer in recent years, as some reports stated that none were raised there for the market. Professor Kraemer stated that he understood that this industry was being revived and that Barbadoes aloes eventually would again be regularly upon the market.

Philadelphia Association of Retail Druggists.

The chief topic discussed at the meeting of the Philadelphia Association of Retail Druggists held Friday evening, October 6th, was the attitude of the Philadelphia newspapers in handling the stories of the work which the board of pharmacy is doing to prevent illegal traffic in habit-forming drugs. At a previous meeting of the association, Frank W. Fluck, a former president, was emphatic in declaring that the character of the reports in the newspapers might make it appear to the lay reader that the retail druggists generally were prone to indulge in the business of supplying the victims with these drugs when in reality the retail druggists, with possibly one or two exceptions, were making every effort to live up to the spirit as well as the letter of the law and were giving the board every assistance possible in breaking up the traffic. He moved at that time that the secretary be instructed to send letters to the press, pointing out these facts to the respective editors and asking them in the future not to put the odium of this inhuman traffic upon the retail drug trade.

Christopher Koch, Jr., president of the association and vice-president of the board, who has personally conducted the campaign, was opposed to such action and declared at the meeting on Friday evening that such a letter would only tend to antagonize the newspapers which had done most excellent service in helping to break up the traffic which the board was fighting. The motion was finally amended so as to provide that the press committee call on the editors and verbally explain the wishes of the retail drug trade.

It was the general opinion that the narcotics which still find their way into illegal trade are brought in by agents from cities outside of Pennsylvania.

Another interesting feature of the meeting was the discussion of a recommendation by the executive committee that the association endorse a proposition from the Drug Club that for a reduced rate the members of the association become "house members" of the club, with all the privileges except voting and holding office. This recommendation was approved, and it is expected that at least 150 new members in the retail drug trade will be secured.

A motion that the association establish an office in the district of the city where the majority of the wholesale drug houses and the offices of some manufacturers in the trade are located was referred to a special committee, with instructions to investigate and report.

D. J. Reese, chairman of the Pennsylvania and the Philadelphia delegations to the recent N. A. R. D. convention at Niagara Falls, gave an interesting report of the convention from a local standpoint.

An evidence of the steady interest in the affairs of the association was the election of twelve new members.

Public Lectures at Philadelphia College.

This session's series of special lectures for the students of the Philadelphia College of Pharmacy, to which the public will be admitted, will be given according to the following schedule:

November 6th: "Bacteriology in Its Relation to Public Health," by Randle C. Rosenberg, M. D.

November 20th: "Medicinal Plants Growing in the Vicinity of Philadelphia" (illustrated), by Stewardson Brown.

December 4th: "Recent Progress in Electrochemical Analysis," by Edgar F. Smith, Ph. D., LL.D.

December 18th: "The Drug Markets of the World," by Albert Plaut.

January 5th: "Dyewoods and Dyewood Extracts," by T. Chalkley Palmer.

January 19th: "The Establishing of Legal Standards for Foods and Drugs," by William Frear, Ph. D.

February 9th: "Present Problems in State and National Pharmaceutical Legislation," by John C. Wallace, Ph. M.

February 23d: "Homeopathic Pharmacy," by Thomas H. Carmichael, M. D.

March 8th: "Serums, Vaccines, Bacterins and other Biologic Products," by Charles E. Vanderkleed, B. S.

March 22d: "The Chemistry and Technology of Baking," by L. H. Baekeland, Ph. D.

April 5th, 1912: "Window Dressing for Pharmacists," by H. Harfman.

Queer Orders from Down South.

Those who love their "Uncle Remus"—and none know him but to love him—have noticed that his Sea Island negro (Daddy Jake, as we recall it, is his name) used a different lingo from the up-country darkey. Native Southerners who have no difficulty whatever in understanding all "Uncle Remus" language, are stumped by much of what "Daddy Jake" says. Illiterate drug store orders when written by native white Americans are bad enough, and those written by negroes are even worse; what, then, shall we expect, from the illiterate negroes who live on the small islands along the coast of South Carolina—these people, with their strange dialect and peculiar appearance?

*will you Please Mix Boston
Pabf and Spritz new ninte
to Gathur an a mother
one But 5 for 10 But
Please Mix them for me
I Mixery for me
Wape me a 15 sent
Both
at it*

M. H. Jürs, of Charleston, has favored the CIRCULAR with a number of the "queer orders" he has received, among which are many from the Sea Islanders. Several of Mr. Jürs' collection are here reproduced (in so far as

Super Hyperfibrofibules

type is capable of reproducing them) together with explanations of some of the less clear ones, and a few are given in fac simile:

1 Calleme & Soada 5c for Addult
5c worth a bubamote¹
hawk Vornick²
5 cts Borry Gadson Ointment³
5 Cent wort of alogum⁴
.05 box of sobbing cotton
5 cents Carimel flowers
Seluge powers.
PerSillgin Save 5⁵
boston Orfum⁶
plese, Sen me 5 hair curie ninement to kill in set
please⁷
5 Cent Pebikin Salve⁸
Ox An Lean Save⁸
5c simple recaratte⁹
10 cts dry good blood¹⁰
10 cts insane powder¹¹
5 cent urrish Root For Babbies
Cinsi ointment 5 cts⁷
[(1) Bergamot; (2) Nux Vomica; (3) Boric Acid Ointment; (4) Aloes; (5) Basilicon Ointment; (6) Balsam Fir; (7) Mercurial Ointment; (8) Zinc Oxide Ointment; (9) Simple Cerate; (10) Dragon's Blood.]

"The Pill Shop" is the name emblazoned on the illuminated sign identifying the store of R. J. Frick, Seventh and Main streets, Louisville, Ky.

C. C. Gautier, of Greencastle, Ia., was seriously injured last month by the explosion of a tube of nitrous ether.

A "Spicy" Wiley Story.

A little story was picked up here in town by a CIRCULAR man the other day which ought to convince any who doubt that Dr. Wiley is sincere in his expressed desire to be just to all interests even though he may not be infallible.

There is a man who puts up a prepared mustard. He received a notice from Washington in which it was stated that his mustard product contained more than the allowable proportion of mustard pods, hulls or shell. He knew that he was careful to use good mustard which was as free from shell as any commercial mustard ever is. He employed a chemist to make an analysis of his product. This chemist reported that it did not contain as much as the allowable proportion of shell.

The manufacturer did not like Dr. Wiley, anyhow, and here was evidence that he was persecuting a man who was trying to, and was, obeying the food and drugs law. He went to another chemist for advice. This second chemist made an analysis of the product and found that it was all right. He then made another analysis, this time using the official method for the guidance of government chemists, and according to this analysis, the mustard did contain too much shell. Here was an interesting situation. Close investigation showed that there was an error in the government method of analysis, in that those who followed it weighed the shell particles with adhering oil, the latter making their weight appear more than double what it really was.

This explanation was sent to Dr. Wiley with the request that as a matter of justice the mustard be passed, that the official method of analysis be changed, and that such reports as had been sent out from the bureau of chemistry adverse to the brand of prepared mustard under consideration be followed by letters explaining the error.

This request Dr. Wiley granted with pleasure and alacrity, much to the astonishment of the manufacturer, who was under the impression that all governmental action was so tied up with red tape as to become practically inaction.

That manufacturer is now one of the staunchest supporters in the trade of Dr. Wiley and of the food and drugs law.

Montana Association.

At the twenty-first annual meeting held recently, at Hunters Hot Springs, the Montana Pharmaceutical Association nominated to the governor for his consideration in appointing a member of the board of pharmacy, T. M. Kehoe, of Billings (the present incumbent); J. M. Seaman, of Livingston; J. A. Kelly, of Lewistown; Lee Warren, of Billings; and Louis Driebelis, of Butte.

Officers were elected as follows: President, J. M. Seaman, of Livingston; vice-presidents, A. C. Rocher, of Bozeman; Lee Warren, of Billings; and C. E. Mollett, of Bozeman; secretary, W. R. Montgomery, of Butte; treasurer, A. D. Rose, of Bozeman; members of the executive committee, C. R. Fuller, of Anaconda; Howard Rockefeller, of Butte; George Husted, of Livingston; and Frederick Woehner, of Great Falls.

Next year's meeting will be held at Boulder Springs.

The Druggists as Others See Him.

The following pen-portrait of the English drug-storeman is one of a series by Holland in *John Bull*:

Another awe-striking personality is the chemist. He is generally very shortsighted, and reads a prescription as if he were sniffing the note-paper. It is at such a moment that his large, dome-shaped head shows to advantage. Its well-washed baldness catches the sun almost dazzlingly, and even reflects the red and green bottles in the window. You can not but admire him for the wealth of pharmaceutical lore he has necessarily at his command, and, apart from this, you are always completely wonderstruck at his faculty for solving hieroglyphics and rendering their interpretation in blithering form. He is never a fashionable man, and he is seldom conversational. But you enjoy visiting him, nevertheless, for his shop is clean and aromatic. You even yearn to be a chemist, and to live your life amid a hundred different perfumes. But the yearning is only transient.

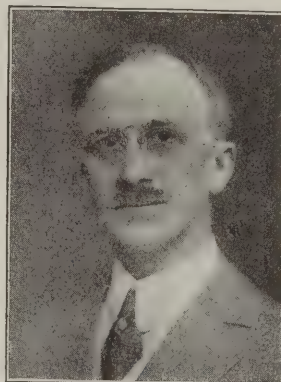
A colored woman has sued a Chattanooga (Tenn.) druggist to recover damages for injuries resulting from burns caused by the ignition of a 70-per cent. alcoholic rheumatism "rub," which the victim applied before an open-grate fire.

Two State Association Presidents.

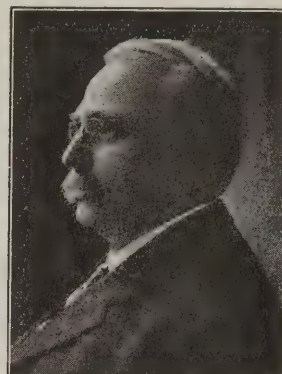
It is fitting that neighbors engaged in the same calling should be acquaintances, hence we introduce to each other and to the readers of the CIRCULAR in general the presidents of the State pharmaceutical associations of New Jersey and New York:

President of the New Jersey Association.

If it were not for the examples of successful druggists in metropolitan centers, in the smaller cities and in towns and villages throughout the country, one who hears the oft-reiterated cry of the malcontents that the drug business has gone to the bow-wows, would in time begin to believe that such a thing as making money behind the counter of a retail drug store was to be classed with the lost arts. Not every one can walk about the streets and pick up yellow-backs, or even take an established well-paying business and keep it going, but almost any man who has



CHARLES B. SEARS.
President of the New York
Pharmaceutical Association.



WILLIAM E. WARN.
President of the New Jersey
Pharmaceutical Association.

within him the elements which would make him successful in any profession or mercantile pursuit can go into the drug business and do as well there, other things being equal, as he could anywhere else.

One of the successful business men of a near-by small city of New Jersey is William Edgar Warn, of Keyport. The fact that Mr. Warn chose the drug business as his life's work seems to have had no particular effect—accelerating or deterrent—upon his rise as a business man. He has stuck to his store close enough to give it the attention it needs, but not so close as to warp his character and make him unfit for other tasks and pleasures of life. for he has done a little something in municipal politics, in banking, in secret orders, and, of course, has not been neglectful of the duty which every man owes to the profession or trade which yields him his living, and so has joined the American Pharmaceutical Association as well as his State organization. In the latter he has given such a good account of himself that he has risen to its highest office, having been elected president of the New Jersey Pharmaceutical Association—the oldest organization of its kind with a continuous history in existence—at its meeting held at Asbury Park in June. He joined the American Pharmaceutical Association in 1886, being the only member of that body in his town. For thirty-seven years Mr. Warn has been a reader of the CIRCULAR, which, he says, is a welcome friend and one he should not like to lose.

Just a few words here as to who this man really is. Well, to begin at the beginning, he is a native New Jerseyman of pre-Revolutionary stock, having been born at South Amboy February 5th, 1853, a member of the Warn family which came from England to America in the eighteenth century. He had attended the public schools of Keyport as well as private schools, acquiring a good preliminary education. He began the study of pharmacy under Dr. William Hodgson, a local druggist and physician. After four years of preparation he was advised by his preceptor that he was prepared to launch out upon the sea of business for himself, so on June 12th, 1872, when less than twenty years old, he opened a drug store at Keyport, and has remained in the business at that place ever since.

Being a public-spirited man Mr. Warn was drawn into local political affairs. He was elected a member of the

board of commissioners in 1892 and was treasurer of that body for sixteen years. When Keyport became a borough in 1908 Mr. Warn was elected one of its councilmen, an office which he resigned this year to accept that of mayor. He was one of the organizers and a director of the People's National Bank, of his town, of which he became president in 1901, an office he continues to fill. Mr. Warn is a Mason, an Odd Fellow, and a member of several other secret, benevolent and insurance orders.

In business Mr. Warn claims to be a progressive conservative. As a pharmacist he endeavors to keep abreast of the newest ideas. As a citizen he is alive to the needs of his community. Last, but by no means least, it may be stated that he married Miss Laura B. Wood, of Charles City, Iowa, October 10th, 1898, and that his home life is of the happiest kind.

President of the New York Association,

Snow could not cool the ardor nor north winds lessen the spirit of the eighty-nine young men and two young women who constituted the graduating class of the College of Pharmacy of the City of New York in 1888—the year of the big blizzard. In this class there were four men who have since attained among other distinctions that of membership in the New York State Board of Pharmacy. These are Dr. George C. Diekman, the present president of the board, Frederick P. Tuthill, Otto Raubenheimer, and Charles B. Sears. One of these has reached even a higher office, for at its meeting held last June at Alexandria Bay, the New York State Pharmaceutical Association chose as its president Charles B. Sears, of Auburn.

Mr. Sears is not quite fifty (and in these times that is saying that he is still a young man), having been born in 1862. When eighteen years of age he began his career in the business in which he has since achieved so much honor in the store of S. C. Suydam, at Baldwinsville, this State. Four years later the first New York State Board of Pharmacy, which had jurisdiction over all the State except the counties of New York, Kings and Erie, came into being, and at its first examination, held at Syracuse, October 14th of that year, it examined a class of twenty-two applicants, of which number sixteen passed, among them being Mr. Sears. As good luck would have it, the number of his certificate was 13. Let's see: Didn't William Simpson draw badge number 13 at the meeting of the American Pharmaceutical Association the year he was elected its president, as well as the year before? There are some combinations that just simply can't be beaten.

In business Mr. Sears is secretary and treasurer of the Charles H. Sagar Company, of Auburn, a half interest in which concern he purchased in 1893. He was recently elected president of the New York State organization of "Rexall" druggists, and is a believer in concentration and co-operation in business.

Massachusetts College of Pharmacy.

The forty-fifth annual session of the Massachusetts College of Pharmacy opened September 25th, with the largest enrollment in some years. The building has been renovated during the summer and much new apparatus installed.

Alfred W. Balch, Ph. G., M. D., has been appointed professor of analytical and organic chemistry; Dr. Henry J. Perry has been advanced from assistant professor to professor of bacteriology, and Thomas J. O'Brien, Ph. G., M. D., is the acting dean.

Eta Chapter, Phi Delta Chi fraternity, gave a smoker to the students on Friday evening, September 25th, at which Dr. O'Brien was the guest of the chapter, and made an address.

Weak Spirit of Peppermint in Massachusetts.

Some specimens of spirit of peppermint collected by the Massachusetts Board of Health in August, were reported to assay as follows:

From C. A. Nelson, of Haverhill, "44 per cent., U. S. P. strength."

From N. C. Tozier & Co., of Haverhill, "67 per cent., U. S. P. strength."

From R. B. Quinland, of Boston, "71.5 per cent., U. S. P. strength."

From S. A. Epstein, of Boston, "71.3 per cent., U. S. P. strength."

News of the Pharmacy Boards.

List of Board Secretaries,

In the following list are to be found the names and addresses of the secretaries of the various boards of pharmacy of the country. When the date and place of the next meeting of a board are known they are given also.

Secretaries are requested to keep us informed as to dates and places.

- ALABAMA—February 13th, at Birmingham. E. P. Galt, Selma.
- ARIZONA—November 8th, at Phoenix. A. G. Hulett, Phoenix.
- ARKANSAS—J. F. Dowdy, Little Rock.
- CALIFORNIA—December 5th, at Hartford. J. A. Leverty, Bridgeport.
- COLORADO—S. L. Bresler, Denver.
- CONNECTICUT—December 5th, at Hartford. J. A. Leverty, Bridgeport.
- DELAWARE—N. C. Downs, Wilmington.
- DISTRICT OF COLUMBIA—January 11th and 12th, at Washington. S. L. Hilton, Washington.
- FLORIDA—January 16th and 17th, at Jacksonville. D. M. Ramsaur, Palatka.
- GEORGIA—C. D. Jordan, Monticello.
- ILLINOIS—November 23d, at Chicago. F. C. Dodds, Springfield.
- INDIANA—January 9th and 10th, at Indianapolis. W. H. Fogas, Mt. Vernon.
- IOWA—December 5th, at Des Moines. E. J. Moore, Des Moines.
- KANSAS—November 15th, at Hays. W. E. Sherriff, Ellsworth.
- KENTUCKY—J. W. Gayle, Frankfort.
- LOUISIANA—F. E. Earhart, New Orleans.
- MAINE—December 13th and 14th, at Augusta. F. W. Bucknam, Skowhegan.
- MARYLAND—Ephraim Bacon, Roland Park.
- MASSACHUSETTS—Every Tuesday between September 1st and July 1st, at Boston. P. J. McCormick, Boston.
- MICHIGAN—November 21st to 24th, at Grand Rapids. J. J. Campbell, Pigeon.
- MINNESOTA—January 15th and 16th, at Minneapolis. C. T. Heller, St. Paul.
- MISSISSIPPI—L. H. Wilkinson, Greenwood.
- MISSOURI—November 13th, at St. Joseph. C. E. Zinn, Kansas City.
- MONTANA—April 9th, at Helena. S. J. Coffee, Missoula.
- NEBRASKA—A. V. Pease, Fairbury.
- NEVADA—R. L. Prouty, Tonopah.
- NEW HAMPSHIRE—F. H. Wingate, Nashua.
- NEW JERSEY—January 18th and 19th, at Trenton. H. A. Jorden, Bridgeton.
- NEW MEXICO—A. J. Fisher, Santa Fe.
- NEW YORK—W. L. Bradt, Albany.
- NORTH CAROLINA—December 5th, at Raleigh. F. W. Hancock, Oxford.
- NORTH DAKOTA—March 19th, at Fargo. W. S. Parker, Lisbon.
- OHIO—F. H. Frost, Columbus.
- OKLAHOMA—January 9th and 10th, at Oklahoma City. J. C. Burton, Stroud.
- OREGON—F. C. Pozzi, Portland.
- PENNSYLVANIA—November 10th and 11th, at Philadelphia and Pittsburgh. L. L. Walton, Williamsport.
- RHODE ISLAND—December 5th, at Providence. J. E. Brennan, Pawtucket.
- SOUTH CAROLINA—November 15th, at Abbeville. F. M. Smith, Charleston.
- SOUTH DAKOTA—E. C. Bent, Dell Rapids.
- TENNESSEE—I. B. Clark, Nashville.
- TEXAS—January 16th, at Austin. R. H. Walker, Gonzales.
- UTAH—January 16th and 17th, at Salt Lake. W. H. Dayton, Salt Lake.
- VERMONT—D. F. Davis, Barre.
- VIRGINIA—January 23d, at Richmond. T. A. Miller, Richmond.
- WASHINGTON—P. Jensen, Tacoma.
- WEST VIRGINIA—A. Walker, Sutton.
- WISCONSIN—January 16th, at Madison. Edward Williams, Madison.
- WYOMING—C. B. Gunnell, Evanston.

Colorado Board.

At the September meeting of the Colorado Board of Pharmacy the following applicants for registration passed the examination:

J. B. Anthony, of Colorado Springs; Philip Berland, Frederick Doyle, and G. L. Edwards, all of Denver; C. J. Elz, of Boulder; F. A. Gribbling, of Denver; F. G. Lennon, of Manitou; W. A. Lusk and J. L. Singleton, both of Denver; and H. E. Wolte, of Colorado Springs.

District of Columbia Board.

Ten applicants for registration were examined by the District of Columbia Board of Pharmacy at its meeting held October 12th and 13th, five being successful. The successful ones are:

G. W. F. Boyd, C. I. Hanback, Gail E. Nelson, D. B. Payne, and L. C. Thyson.

The next meeting of the board will be held January 11th and 12th.

Illinois Board.

Seventy-five persons applying for registration as pharmacists were examined by the Illinois Board of Pharmacy at a meeting held at Chicago in September. Twenty of these were successful. Twenty out of thirty-eight persons applying for registration as assistants on the same date passed the examination. The successful ones are:

As pharmacists—A. J. Alexa, C. S. Eftaxopoulos, E. J. Halfacre, Raphael Jacobson, E. W. Jaworski, L. Kallberg, Frank Kremer, Jr., L. A. Marks, Vincenzo Marzano, R. J. O'Brian, R. J. Orr, Vito Pisani, Wolf Rosenberg, R. S. Scott, and L. L. Tabenski, all of Chicago; C. C. Gustine, of Canton; H. H. Heidbreder, of Quincy; C. M. Lynds, of Moline; B. S. Schildberg, of Dixon; and R. I. Wisman, of Quincy.

As assistants—John Allegretti, H. C. Babbitt, F. B. Balmer, E. A. Deming, Maurice Fitzgerald, Harry Hurwich, O. M. Johanson, Babina Kaczynska, L. N. Koch, J. R. Lyzywek, E. O. Morrison, Harry Notov, H. G. Patterson, M. L. D. Spikings, A. J. Stritesky, M. R. Tout, and R. T. Walker, all of Chicago; E. R. Abbott, of Bloomington; J. A. Dorjahn, of Blue Island; and W. A. Grau, of Aurora.

Local registration was granted to H. F. Forrest, of Minoaka; and L. D. Lyons, of Cuba.

The next meeting of the board will be held at Chicago, November 21st to 24th.

Massachusetts Board.

Examinations were conducted by the Massachusetts Board of Pharmacy September 12th, 13th and 25th, forty-eight applicants for registration being examined. Of these seven passed as pharmacists and twenty as assistants, being the following:

As pharmacists—F. J. Brannigan, of Ware; W. M. Heikinen, of Fitchburg; Frederick Lamb, of Cambridge; M. M. Leibel and B. E. MacIntyre, both of Boston; W. L. Merrill, of Newton; and A. W. Scott, of East Boston.

As assistants—J. P. Buyniski, of Worcester; Daniele Cangiano, of Boston; Alice J. Driver, of Lawrence; L. H. DuBois, of Lowell; J. W. Dunn, of Gloucester; A. N. Gakidis, of Manchester, N. H.; Giovanni Gallo, of New York, N. Y.; J. D. Glancy, of Upton; Eugene Guilbert, of New Bedford; J. J. Harrington, of Springfield; W. A. Jarrett, of Fiskdale; A. B. Lecain, of Boston; G. N. Lincoln, of Somerville; C. A. Lundquist, of Roxbury; E. L. McGrath, of Lynn; D. G. Piscopo, of Boston; J. L. Polley, of Cambridge; J. A. Remy, of Fall River; James Thomson, of Wakefield; and F. D. Williams, of Quincy.

The term of E. O. Engstrom, of Pittsfield, as a member of the board, expires shortly; under the law he cannot succeed himself and E. F. Fahey, of the same city, is talked of as a possible successor. The Massachusetts Pharmaceutical Association has nominated for the vacancy: Messrs. Dalton, Martin, and Ripley.

Michigan Board.

At the August meeting of the Michigan Board of Pharmacy the following persons passed the examination for registration.

As pharmacists—W. E. Ammerman, of Iron River; T. H. Bolitho, of Manistique; L. C. Crissman, of Rochester; A. B. Pohl, of Grand Rapids; N. S. Shapero, of Detroit; and P. J. Tobijanski, of Laurium.

As druggist—W. G. Martin, of Cheboygan.

The next meeting of the board will be held at Grand Rapids, November 21st to 24th.

New Jersey Board.

In September the board obtained judgment for \$100 against an Elizabeth drug-store employee who, not being a registered pharmacist, sold tincture of iodine.

New York Board.

At its recent annual meeting the New York Board of Pharmacy elected the following officers: President, B. M. Hyde, of Rochester; and vice-president, C. O. Bigelow, of this city. Warren L. Bradt, of Albany, is secretary to the board.

Oklahoma Board.

Out of a class of thirty-seven candidates for registration examined at the meeting of the Oklahoma Board of Pharmacy, held October 2d and 3d, at Oklahoma City, the following seventeen passed:

F. S. Beach, of Fort Cobb; E. P. Bellwood, of Wichita, Kan.; Vernon Bennett, of Oklahoma City; E. E. Breckenridge, of Carter; R. M. Connell, of Hugo; R. W. Ewers, of Tulsa; George Fugue, of Muskogee; S. B. Halley, of Oklahoma City; J. H. Houck, of Stillwater; Robert Keys, of Schoolton; C. W. Evans-Lombe, of Edna, Kans.; H. J. Oglesby, of Krebs; Q. Q. Quigg, of Galena, Kans.; Lloyd Ransopher, of Wichita, Kans.; E. H. Schellack, of Galena, Kans.; Z. G. Waters, of Lenapah; and M. A. Yeomans, of Oklahoma City.

The following graduates of schools of pharmacy recognized by the board were registered as pharmacists without examination:

L. E. Albert, of Dixonville, Pa.; J. F. Caldwell, of Washington, Pa.; Horace Crawford, of Alluwee; G. C. Faust, of Scalp Level, Pa.; R. M. Harper, of New Albany, Miss.; F. M. Moore, of Bennington; S. W. Porter, of Glen Ullin, N. D.; F. C. H. Roetting, of Oklahoma City; M. E. Rubin, of Parksville, N. Y.; W. D. Thorne, Jr., of Oklahoma City; Hoyt Weed, of Fairview; and J. P. Hefley, of Lawton.

The next meeting of the board will be held January 9th and 10th, at Oklahoma City.

Rhode Island Board.

Two applicants for registration were examined at the October meeting of the Rhode Island Board of Pharmacy. E. H. Mason, of Providence, passed.

The next meeting of the board will be held December 5th, at Providence.

Wisconsin Board.

Twenty-nine applicants for registration were examined by the Wisconsin Board of Pharmacy at the meeting held October 3d to 6th, at Madison. Twelve applicants were successful, being the following:

As pharmacists—J. A. Baker, of Randolph; and H. O. Jaasted and H. W. Leonard, both of Madison.

As assistants—W. E. Cleophas, of Beloit; Walter Fischer, of Milwaukee; J. W. Jensen, of Stevens Point; E. H. Koebler and Dale Ruedig, both of Milwaukee; Vivian Staples, of Washburn; A. L. Steen, of Madison; G. L. Stock, of Ottawa, Ill.; and Bernard von Engel, of Milwaukee.

H. W. Jones, of Mondovi, was registered without examination, being a licensee of the Minnesota board with which the Wisconsin board reciprocates.

The next meeting of the board will be held January 16th, at Madison.

Interstate Association of Boards.

The Interstate Association of Boards of Pharmacy, embracing the boards of Illinois, Indiana, Kentucky, Michigan, Minnesota, Ohio, and Wisconsin, met at Madison, Wis., October 3d, during a meeting of the Wisconsin board. The association elected the following officers: President, Burton Cassaday, of Indiana; vice-president, R. H. White, of Kentucky; and secretary, O. G. S. Boberg, of Wisconsin.

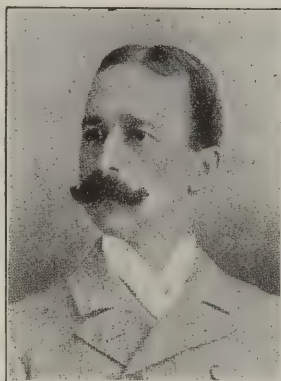
During the month of September the New Jersey board of health examined 9 samples of spirit of peppermint, 3 of which were above and 6 below the standard, and 14 of tincture of iodine, 7 of which were above and 7 below.

Obituaries.

GEORGE H. HITCHCOCK.

George H. Hitchcock, president of the New York branch of the American Pharmaceutical Association and its representative in the council, died suddenly at his home in this city, October 13th. He was in his fifty-seventh year, having been born at Homer, this State, July 23d, 1855.

In 1871, Mr. Hitchcock began an apprenticeship with Atwater & Kellogg, and following an inclination instilled by Mr. Atwater he became a registered pharmacist. In 1877, he went to Cleveland, Ohio, to conduct a prescription department for Mr. Kellogg, and a few years later in connection with his former employer he opened a laboratory in that city. In 1881, a branch was opened in the store of Fraser & Co., in this city, and later was transferred to 9 West Twenty-ninth street, the firm name becoming Kellogg & Co. After two other movings the business was located at 1031 Sixth avenue in 1896, where it remained until several months ago, when it was moved to the opposite corner. In 1906 the firm name became G. H. Hitchcock & Co., the present title.



GEORGE H. HITCHCOCK.

Mr. Hitchcock was very prominent in the pharmaceutical circles of the city. In addition to his activities in the local branch of the A. Ph. A. he was treasurer of the Manhattan Pharmaceutical Association and a trustee of the College of Pharmacy of the City of New York, and held membership in the several other local organizations as well as in the New York State Pharmaceutical Association, of which he had been a vice-president. His store was recognized as an example of professional pharmacy, and he was the moving spirit in the get-together meetings of the New York branch of the A. Ph. A. and the Medical Society of the County of New York.

Mr. Hitchcock was a Mason and a prominent member of the Royal Arcanum. His circle of friends is a wide one. He leaves a widow and one daughter, and is survived also by a brother who was associated with him in business.

MAX CRAMER.

Max Cramer, a trustee of the Massachusetts College of Pharmacy, died at his home in Roxbury, Mass., October 12th, at the age of sixty-one years. He was also a life member of the college and had been a vice-president and an auditor. Mr. Cramer was a native of Germany. He leaves a widow and three children.

The following are the recently reported deaths of other persons in the drug world:

GEORGE P. BAILEY, formerly of New Bedford, Mass., at Natick, October 2d, aged fifty-three years.

JOEL J. BARNETT, of Baltimore, Md., October 4th.

J. C. BEECHLER, of Oskaloosa, Iowa, October 16th.

HENRY BLUMNER, of Baltimore, Md., October 13th, aged thirty-five years.

IGNATZ DEISSIG, retired, of Brooklyn, N. Y., October 12th, aged fifty-one years.

WILLIAM FRAMTON ELMENDORF, of Albany, N. Y., September 19th, aged eighty-two years.

T. N. HARROD, of Bellecenter, Ohio, October 8th.

FRANK W. HAYWARD, of Sussex, N. J., September 24th, aged thirty-seven years.

HERMAN KOEGEL, of Owensboro, Ky., at Cincinnati, Ohio, September 26th, aged forty-four years.

CHARLES R. LOWELL, of Greenfield, Mass., September 24th.

JOHN A. McGRATH, of Keokuk, Iowa, at St. Louis, Mo., October 5th, aged fifty-six years.

HENRY H. MESCHENDORF, of Louisville, Ky., October 8th, aged twenty-nine years.

B. E. OLIVER, of Auburn, Wash., September 27th.

AUGUSTUS E. PRICE, of Gloucester, Mass., September 28th, aged eighty-three years.

ROBERT C. SPOHN, of Toledo, Ohio, September 26th.

CONSTANTINE TROXLER, of Louisville, Ky., September 30th, aged fifty-four years.

MURRAY R. WILSON, formerly of Providence, R. I., at Brockton, Mass., October 8th.

GEORGE YOUNG, of Denver, Colo., October 12th.

GEORGE ZELHOFER, of Brooklyn, N. Y., October 14th, aged fifty-nine years.

Alfred Lee Manniere, Esq., of this city, died October 1st, at the age of fifty years. He took a prominent part in anti-narcotic affairs, and was forward in the recent efforts to amend the pharmacy law of this State.

An Antiseptic Millennium.*

BY JAMES RAVENSCROFT.

When grocer, and butcher, and baker, mind health laws as laid down in a book,
When the cooks who rule in our kitchens wear sterilized gloves when they cook;
When butler, waiter and waitress shall be antiseptically fit,
When at antisepticized tables we shall antiseptically sit,
And eat only pasteurized victuals with sterilized spoons, forks and knives,
And only from pasteurized bottles the babies shall nourish their lives;
When we shall sleep only in bedrooms from bacteria made immune,
And take baths in boiled water only (and be taking more of them soon);
When taxicab seats shall be harmless, and even the street cars be clean,
When Pullman car berths shall be spotless (and porters don't have to be "seen");
When all coined money is polished, and the bills are laundered and dried,
When the first microbe is forgotten and the last one discovered has died;
When handshakes shall be sanitary, and kissing shall be made a crime,
When the air before we breathe it shall be "treated" and stored for a time,
Then those that survive shall be perfect, and glad they got in the game,
And scientists only shall praise us, and scientists only shall blame,
We shall rest, and you bet we'll want to—let up for a whole month or two,
Till the scientists all get together and start us out on something new.

Atlanta dedicated a peace monument October 9th, with appropriate ceremonies conducted by the "Old Guard" of the Gate City Guards. Elaborate engraved invitations were sent out, bearing the names of Hoke Smith, governor of Georgia; Courtland S. Winn, mayor of Atlanta; and other dignitaries, as well as members of several committees. The name of Joseph Jacobs appeared among those of the citizens' committee, while F. L. Seely was among the representatives of the Chamber of Commerce.

"A vote by the inmates of our jails and penitentiaries would show an overwhelming majority in favor of the abolition of our police," is the comment of one pure food advocate in referring to the recent attacks made on Dr. Wiley. This leads the *National Bottlers' Gazette* to remark that a canvass of the adulterators and their supporters would show that they all glory and shout because of the mud that is being thrown at Dr. Wiley and are hoping that he will be ousted.

The Michigan Association of Retail Druggists at a meeting held last month at Flint, adopted resolutions supporting Dr. Wiley and his associates in their position on the enforcement of the pure food laws, and President Taft for his endorsement of Dr. Wiley's attitude. The association pledged its co-operation with Dr. Wiley in a continuance of his efforts to have pure food and drugs.

* From the Journal of the Southern States.



DRUG STORE MERCHANDISING

Selling Candy.

There Is in Confectionery a Large Profit, both as to Bulk and Percentage—A Few Words about Package Goods for Druggists and a Timely Suggestion.

In the majority of drug stores in the land, it is fairly safe to assert, confectionery is a line which is either shamefully neglected or frightfully abused. And doubtless it is equally safe to say that in that minority of drug stores in which candy is handled in a business-like way, it pays as satisfactory a profit—investment, space and time considered—as any other side line.

Wherever there is a soda fountain, customers naturally expect to find candy; and where there is no fountain, there is all the more room for a confectionery case, and more necessity for having something to attract a certain class of very desirable trade.

Of late years there has sprung up a great rivalry among manufacturers of high-grade box confectionery, and their efforts to surpass each other have stimulated the demand for sweetmeats until now the figure representing the annual expenditure for candy, could it be ascertained, would probably be astounding. The people have more money to spend for luxuries now than they have ever had before, and perhaps the first luxury that a majority of them think about, is candy: the little tot of the squalid tenement, squeezing in his grimy hand the penny which has come to him by hook or crook, in his quest of an all-day sucker, is no more earnest than is milady when she orders a 5-pound box of her favorite chocolates to take with her as she goes motoring. High and low, rich and poor, men and women, all America meet on a common footing of candy-eating.

Box goods are for many reasons the kind of candy best adapted to drug-store trade. In the first place, they pay a good profit—and then they are not "mussy," require no "pawing over" or weighing, are not subject to the loss which comes from "sampling" or giving down weight, and they retain their freshness longer than the goods displayed in open trays.

For more years than most of us remember, "a box of Huyler's" has meant a box of fine candy, so when the CIRCULAR began to look around to see something definite it could do to help druggists get a larger share of the millions of dollars that represent candy profits in this country, it naturally consulted "Huyler's." "When we estab-

lish a sales agency with a druggist," said F. De Klyn Huyler, president of the company, "we do not require that he purchase any stipulated quantity of goods." Then he went on to say: "The druggist, of course, realizes that it is to his interest to have an attractive display, and when he becomes acquainted with the demands of his trade will know in what quantities to order to insure a fresh stock on hand at all times.

"We supply to our agents a very attractive dummy display, for which we, of course, make no charge, and in addition, supply them with attractive signs, etc.

"As to the size of packages, we recommend, that, of course, depends upon the size and wealth of the town, and the general demands of the druggist's trade. The margin of profit also varies on the different packages, but that the margin of profit is a good one is proven by the fact that we have on our ledger the names of thousands of druggists, some of whom have been handling our goods since the organization of our firm."

One of the companies manufacturing a high grade of box confectionery which has been making a strong bid of late years for the druggists' trade, is the Belle Mead concern. Mr. Rockhill, secretary of this company, seemed by no means averse to giving some reasons why druggists should handle a well-recognized line of fine box candies, and incidentally has spoken of some of the methods which have helped his house succeed. "As you already know," he began, "we make candy 'pure'; that is, we never allow glucose or anything except sugar, fruit, nuts, etc., to go into our creams—we do not allow coloring matter or anything of that kind." Mr. Rockhill more than intimated that the practice of his house with respect to deleterious materials was not universal among candy makers. Then he turned his attention to the matter of sealed packages, saying: "We believe that no candy should be allowed on the market except in sealed packages, for, in our opinion, even in the best regulated stores, candy comes into more or less contact with dust, germs, etc., brought into the place by the people coming in throughout the day; therefore we insist that every ounce of our candy be packed in our own factory and sealed." He was unable to call to mind another candy manufacturer which enforced such a rule.

Mr. Rockhill asserted that a druggist is not wise to carry more than one line of candy, and while he admitted that to be a rather broad statement, he said he had seen numerous instances which tended to sustain its truth. Some reasons for this view he stated as follows:

"To-day the people of America are gradually finding out that candy has been one of the worst-treated articles, b"

the manufacturer, ever made, and they are commencing to insist on knowing just how their candy is made.

"The people of America look to the druggist to have the one store they can trust to carry pure and good merchandise, and therefore the druggist should spend a little thought and time in finding out what, in his judgment, is the best and then putting it in his store and pushing it. He will gradually find that his customers realize what he is doing, and not only give him their candy business, but come to him for everything else, for while a purchaser usually goes to the nearest drug store for a tooth brush, or medicine, when the druggist secures the exclusive agency for a candy, it means that the people of his neighborhood have got to come to him for that candy, whether he is their regular druggist or not. Every time he makes a customer for the special brand of candy which he carries he gets one more person in the habit of coming to him, which has a tendency to prevent the customer from going to his competitor for other things. We all know that habit in a purchaser is a mighty wonderful thing.

"Right there is one of the biggest thoughts of all, and one of the best reasons for selecting the one candy which he knows is the kind he ought to sell his customers and then stick to that one line. There is no customer whom he can not win to his candy if he has the recognized fine line, although at the start he may have a few customers who insist on something else, but he will gradually win them, and when he has made a candy customer he has made a customer for other things he carries, whereas with a product in his store like tooth brushes, which his competitor can sell, he simply draws the trade of his neighborhood when he happens to be the nearest druggist to them.

"Again, the time has come when every product in the drug store, or any store, as to that, should be sold with a little bit more attention to whether it is the best that can be secured for the money. If a brand of candy is made right, packed right, shipped when fresh; if the manufacturer treats his agents right and sells them candies at a price that enables them to reap a profit, then what excuse is there for a druggist to buy candy that is not just what it should be, and why should a druggist expect to win customers from his competitor if he does not have a candy that is in some way better than the usual standard makes?

"We do not think the druggists of America have yet realized the importance of candy, for candy not only brings a profit of its own, but from our experience we believe it is a business-getter with any druggist who has the right line; and, further, that he will let his customers get in the habit of going somewhere else if he happens to sell the wrong line."

There is too much in the candy subject for presentation in one number of the CIRCULAR—it would be almost as easy to present the subject of pharmacy or of soda water in one issue and stop—so there will be much more said on it in this department from time to time. Just now, though, is the time to emphasize the fact that with the approach of cold weather the candy business will begin to look up; and that by Christmas it will be at its height. The wise man will be ready to meet the demand.

Sign writing is not hard to learn, and neat signs hanging about in the store or in the show window are a trade stimulant of no mean proportion. One thing which may be said in their favor is that they work all the time, even when the store is closed and the clerks are asleep. In every store where there are as many as three or four people, perhaps at least one has a latent ability to do artistic card lettering, and needs only a little encouragement and practice to develop this talent.

"Be sure you are right, and then go ahead" maybe good advice, and anyone can give it, but the emptiness of it, the emptiness of it! How is one to know he is right, in many cases, until he has gone ahead? The man who never goes ahead when he may be wrong may be a model as a piece of statuary, but he could not qualify as an "also ran" in a lame man's race.

Now is a good time for the druggist to look over his stock of rubber goods. Hot water bottles will soon be in demand, and portions of last winter's assortment may have to go on the bargain counter as damaged goods. The sooner the old stuff is cleaned out, the less loss there will be on account of its deterioration.

Making Goods Yield a Profit.

It is not necessary for a druggist who wants better prices for his goods to wait until some association "resolves" that he should have them. Indeed the "resolution" route seems to have no end—to lead to no definite plan. How one druggist, single-handed, "boosted" prices is thus related in the *Red Cross Messenger*:

He went over his stock and scheduled all his goods which were being sold at prices too low to offer a living profit. These he classified into groups, "patent" medicines, drugs and chemicals, specialties, sick-room appliances, household remedies, rubber goods, various plasters, surgical dressings, etc. Opposite each item he placed the new price—one which was a reasonable raise.

He was astonished to find that certain goods had been sold for some time at less than cost. He found others had been sold at low prices without any regard for demand, probably from force of habit or else by reason of an epidemic of cutting in his vicinity.

He found that there were many goods on which the price could be advanced without encountering opposition. Among these goods were certain items which had a moderate sale, which were used for particular purposes by people who would not haggle about the price. These he advanced at once, then week by week, sometimes daily, he went over his list and systematically raised the prices. He went about the work cautiously, instructing his clerks to give particular attention to any opposition on the part of buyers and when such opposition occurred to attempt to meet it with arguments as to quality, higher cost, good service and the increased cost of raw material, living and doing business. In some instances the customers were frankly told that the goods had previously been sold at less than cost, thus being taken into his confidence.

He also talked the matter over with a few of his friendly competitors and immediately two of them followed his example, using his list.

To his surprise he found the loss of sales were very few. He forestalled opposition by using his newspaper space, and other advertising adjuncts. He interested his trade by talking about quality, high service, accommodations, experience, and by hinting in an unobtrusive way that low-priced drugs and medicines were dangerous—that every drug he sold was guaranteed under the pure food and drugs law. In fact, he found himself gaining new trade; customers came simply because he had the reputation of having everything of the highest grade.

Now this druggist firmly believes that it is a good thing to acquire a reputation for high prices.

The whole scheme was carried out systematically, carefully, and gradually. In less than a year the figures showed that he had been able to make an advance of from 10 to 50 per cent. on each line of goods.

The movement gradually spread among his competitors. While here and there some fellow would find out that he had raised his prices and make a noise by advertising something at a cut rate, this kind of disturbance soon blew over. He says that he is convinced that with good salesmanship, good goods, and good business policy a druggist need not be afraid of anyone.

Better price movements are reaching out into all lines of retail work. Hardware stores, grocery stores, dry goods stores, and even department stores are tending that way. While many still offer bargains to attract the trade, more and more they keep an eye on the profits and will eliminate the general wholesale slaughter so long in use.

Men Wanted: Salary No Object.

"Capital is easy to get, but men are not." Any man or syndicate of men, personally honest and known to be industrious and progressive, can present a good business-producing idea to the money lenders and get all the financial backing needed. But when it comes to the matter of getting men to work for them—men of ability, industry, integrity, loyalty—they encounter an obstacle which causes many a brilliantly conceived plan to lose the name of action.

"God give us men," sang the poet; and the refrain is heard in practically every business establishment in the land, from the small drug store which furnishes employment for one clerk, to the largest chain of stores, manufacturing and wholesale establishments, and billion-dollar trusts.

Standing in with the Bank.

Much has been said of late about the financial benefit to be derived by druggists from utilizing the means supplied by bankers for promoting their business. Articles on borrowing money and discounting bills, and reports of discussions of the subject may be seen in the issues of the CIRCULAR for last month, page 613, and for the month before, pages 507 and 542. Here is a short note bearing on the subject, from *Business*:

"It takes the average merchant years of experience to get him to grasp a principle that he should take home to himself the first time he pays for a bill of goods," says a retailer who has built up his business mainly through his financial ability. "I refer to the principle that the place to borrow money is at a bank or other financial institution and not of the jobber or manufacturer who supplies the goods.

"I got my bank accustomed to 'taking the cash discount' by going to the president, when I first began business, and saying, giving him a copy of the order, 'I am going to buy these goods from my jobber. Their discount is so-and-so for spot cash. If you are in a position to take advantage of this rate of interest, supply me with the money and take the discount yourself, and I will pay you in sixty or ninety days.'

"Commonly the banker would be glad to do it, and I not only got an inside price, but got two more valuable things, a reputation with my suppliers for paying cash, and I built up my credit with my banker so that I was able to get money from him when other business men in the same town were offering high rates for ready cash and were unable to get the accommodation.

"It can be set down as an absolute surety that your banker can afford to lend you money on better terms than your supplier—for that is what the latter does when he extends you credit. The dealer who discounts his bills takes a first, clean profit that appeals to the imagination—and starts the money-making early in the game."

What Is a Grouch?*

A grouch is a peculiar variety of an individual who hates himself, toils not for his master and spins but tales of woe.

He works himself into a frenzy over nothing and wastes his talents on the sea of prejudice.

He froths, fumes, barks, growls, and bites himself.

He has everything condemned and the universe on the toboggan.

He puts the kibosh on the good intentions of others and lets his own present slip into a very slimy past.

His disease, is contagious and those who catch it find the only antidote is in knocking somebody's head off.

Supreme conceit lies within the grouch.

And his principal effort in life is to make himself unnecessary to others.

He rates cheerfulness as nonsense and a smile as insincerity.

In fact, he is all out of focus, short circuited, punctured, and his fan strap is slipped.

If I could think of other things I would write them

But I can't.

So shoosh.

The modern business man is constantly seeking new contributions that he may make to society out of which will be paid him a profit as his reward. Such new ideas only come to the man whose brain is prepared, like the soil of the farmer, for the seed that falls. Broaden your vision by studying things that do not concern you immediately. To-morrow something in Japan or in Australia may affect your business. If you have read up about Japan or Australia you will understand the meaning of the fact.—*Bulletin of the National Association of Credit Men*.

Promptness and courtesy in waiting on customers is of quite as much importance as giving them the desired article at the right price. The attitude of many clerks and some proprietors would seem to indicate that they are considerably annoyed at being disturbed by the entrance of a customer and this impression on a customer does not irresistibly draw him back for the next purchase.—*Pacific Drug Review*.

* From Tips.

West Now Wants Cents.*

After years of turning up noses at cheap people of the East who would need such a small coin as a "penny" in doing their daily business, there has been developed a real call in the West for these same coins. It is largely due to the feeling of the housewives that much money could be saved in their buying at the shops and in other ways if they had the small pieces of money. A movement has been put under way for the banks to import the coins, and some of the shops are already advertising wares for sums that change into "pennies," and are handing out those coins.

When an inquiry was recently made into this subject by persons interested it was found that less than 20,000 pennies were in the city. Many of them were held in banks, which said they had difficulty in disposing of them. As in other cities in the West, the "nickel" had been the small coin, and the easy spenders had treated even that somewhat contemptuously. The newspapers sell for five cents a copy. Children have been brought up to the idea of asking for a nickel for candy and spending it.

Now the cost of living is coming home even to the free-spending West, and housewives have found that it is not only well to look after the "nickels," but the "pennies," too. It is pointed out that under the present system if a purchase comes to an odd amount the total is put up to make the even "nickel" for the shopkeeper. For instance, eggs, now 23 and 33 cents a dozen in other places are 35 here. It is also said that the satisfaction of childish wants with small coins would bring a good saving.

W. W. Armstrong, president of the National Copper Bank, is one of those who has looked into the situation. Speaking of it, he said that the bankers of the city had never been called upon to handle "coppers" in large amounts, and would not bother with them unless customers asked for them.

"Salt Lake has few 'pennies' in circulation," he explained. "It costs so much to ship them here that they are not in a hurry to get them into circulation. Yet dealers, bankers and retailers admit that if about 2,000,000 'pennies' could be scattered through the cash registers in the small stores, there would be an appreciable decline in the cost of living, for the poorer families, at any rate."

A Hard Master.

Habit is a bad master. Many men do a thing or refrain from doing it simply through force of habit without being able to give any reason for their action. Maybe there are some druggists among these men; indeed it has been intimated in some quarters that the average of such men in the drug business is high.

Some druggists buy a certain preparation which they could make to advantage, simply because they have always done so; others make a preparation when it would pay them in time, money and satisfaction to buy it ready made. And it is the same way with extending or refusing credit; carrying or refusing to carry certain lines; going after the prescription business and bringing it to their stores or letting it get beyond their reach.

Certain druggists have found that it pays them to borrow money at ½ of 1 per cent. a month and discount bills which carry interest amounting to 2 or 3 per cent. a month, while others, from force of habit, go ahead paying the higher rate. Many druggists have discovered that it pays to get out of the rut in the matter of advertising, in the matter of fixtures, in the matter of various kinds of things connected with their methods of doing business or the appearance of their stores.

A habit, like the little girl with the little curl, when good is very, very good, but when it keeps a man in a rut it is horrid.

Thanksgiving Day Tip.

Thanksgiving Day affords an opportunity for the live dealer to reap a harvest. Pepper, sage, spices, flavoring extracts, etc., are strictly drug merchandise. Now is the time to display them, to advertise them, to "sample" them, and to push them in every possible legitimate manner. There is good profit in their sale.

The people are alive to the value of pure goods and already are inclined to believe that the drug store is a better place to get them than the grocery.

* A press dispatch from Salt Lake City.

On Holding Trade.

"Quick Sales and Small Profits" as Good Business for Druggists as for Other Merchants—One Sale at a Large Profit Is Poor Business; Many Sales at Small Profits, Good.

By M. P. GOULD.

There are certain kinds of goods for which there is a fairly fixed demand, which can not be stimulated to any great extent. On the other hand, in connection with the great majority of products there is a direct relation between supply and demand—between price and profits. For example: if the price of meat gets too high, a great many families will eat a cheaper kind of meat or eat meat every other day, instead of every day. The same thing is true of nearly all the commodities of life. In New York city some time ago, there was a law passed which reduced the price of gas from \$1 to 80 cents per 1000 cubic feet. As a result, the price of stocks in the gas company fell off to a considerable extent. But with gas at 80 cents per 1000 cubic feet instead of \$1, so many more people began to use gas, both for light and heat, that the company's profits increased instead of decreasing.

The same thing has been proved with regard to the price of daily newspapers. Many publishers used to contend that a good paper could not be distributed profitably for less than two cents or three cents a copy. Then some daring publisher, probably in desperation, trying to increase his circulation, cut the price to one cent. His circulation increased so fast that now a great number of daily papers throughout the United States are sold at one cent a copy; and there never was a time when the publishers made so much money as they do now.

And so it is with regard to a thousand other things. There are many goods now sold in drug stores at too high a price. If they were sold at a lower price, the druggist would make a larger profit. For example: denatured alcohol is sold in many drug stores at 25 cents a pint, 40 cents a quart, and, as a special concession to favored customers, sometimes at \$1 a gallon. Now, denatured alcohol can be purchased by the druggist and sold at 60 cents a gallon, in 1-gallon containers, and 50 cents a gallon in 5-gallon containers—and yield a good profit. It can be sold at almost the same ratio in quarts, pints and half-pints, and still return a full profit.

Some druggists feel that if they sell denatured alcohol at that price they are merely cutting their own price for wood alcohol and denatured alcohol, and will therefore simply injure their own business and reduce their own

profits. They argue that only just so much denatured alcohol will be used anyway; therefore "every time we sell a gallon for 60 cents instead of a pint for 25 cents, we cut off that 'big' profit that would come to us anyway if we would let people buy it in small quantities and pay for it at a big price, proportionately."

That argument is a pure and simple fallacy. Now-a-days there are so many alcohol-burning percolator coffee pots in use, and so many alcohol-burning chafing dishes, heating stoves, marine stoves, household stoves, house lamps, automatic-heating flatirons and other devices for the consumption of denatured alcohol that there is a growing demand for this fuel. Consequently while the druggist takes the narrow view of keeping the price up, the customer or consumer either does not buy the percolator which burns that fuel, because the fuel costs so much, or goes to somebody else who sells the denatured alcohol at a lower figure.

In one big city a dealer thought that he would see what he could do by making a run on denatured alcohol at the 60 cent and 50 cent a gallon price. In a short time, strange as it may seem, this dealer was selling 25 barrels of denatured alcohol a week. His profit was 50 per cent. or 20 cents a gallon, or a total of something over \$200 a week. His demand is increasing all the time. Other dealers at first thought that he would "kill the trade." Then

You become quite expert after doing a thing for 40 years.

That quite necessarily applies whether one is a student or a scientist, a mechanic or an artist, a worker or a thinker. And it applies above all to the selecting and compounding of medicines.

So many years' experience in the putting up of prescriptions is proof enough of ability and care.

Add to experience, ample facilities, modern equipment—that makes for accuracy—and a stock of the finest drugs, and you can readily see many reasons for bringing your prescriptions to us to be filled.

If you recognize our especial ability in this work you will quickly add yourself to our list of satisfied customers.

(Name and Address)

they suddenly discovered that their trade was not being affected, but that this man was building up a big business of his own. How big a business can be made will be understood when you realize that in Germany 38 million gallons of denatured alcohol were sold last year, while in the United States with more than twice the population of Germany, only 12 million gallons were sold. The people of the United States are always extravagant. If the careful Germans burn, roughly speaking, one gallon per capita a year, the people of the United States should burn about three gallons per capita a year. That would mean that there should be consumed in this country something over 250 million gallons a year, at a profit of 20 cents on each gallon to the dealer. That is a clean profit of 50 million dollars a year for the dealers, whereas the 12 million gallons now sold, even if they yield a profit of 40 cents a gallon, bring the retail dealers only \$4,800,000 profit annually. In other words, the dealer, because he is afraid he will lose his high profit on a little 25 cent sale, robs himself of ten times as much total profit.

This rule of supply and demand applies more aptly to a thing like denatured alcohol, than it does to potatoes or onions, or meat. People think that they must have potatoes and onions and meat. They feel they cannot live without these articles of every day food. However, they do not have to have denatured alcohol. For light and heat they can burn kerosene or gas or coal or wood or coke or acetylene or crude oil, consequently the sale of articles in the "semi-luxury" class with denatured alcohol must be increased by "wooing" instead of "forcing." In order to secure the maximum of profit, the public must be induced to try these wares and learn their real advantages. One may not sit back and say, "Pay this price or go without," because people *can* go without.

On the other hand, denatured alcohol is an article which naturally should be sold in drug stores. The druggist does not want to handle kerosene, because it is smelly and mussy. He is not in the coal and wood business. He cannot handle gas. But denatured alcohol is a thing which many now do handle, and which more can handle and in much larger volume. People are in the habit of coming to the druggist for alcohol. The drug store is the first place they think of when they want any sort of alcohol.

There are many other things in drug stores which are more luxuries than necessities. The sale of such goods depends on the fancy of the consumer. He buys them if at all, of his own free will. He cannot be driven to buy them. He must be shown the reason, the advantages to himself, for buying them. As an instance: Many druggists were very much perturbed when quinine tablets were first offered to the public in bottles, containing 100 tablets. Some druggists felt that offering 100 tablets for 25 cents or 30 cents was such a tremendous reduction from 10 cents a dozen—which price they were accustomed to get—that their business in that line would all go to "pot." It did not. The new departure simply increased the call for those goods, consequently nowadays, when a druggist charges 10 cents a dozen for quinine tablets, the customer *may* pay the price and say nothing, but the next time he is quite liable to go to some other store.

Olive oil is an article of which there should be ten or twenty times as much sold by druggists as there is now. If it were sold in a more liberal way people would get in the habit of drinking it. They would use it far more freely on salads and in all kinds of dressings. They

Drink Olive Oil

Yes; *drink* it. It is a food-beverage, much to be preferred to coffee, tea or even cocoa. : : :

Pure Olive Oil has a palatable, nutty flavor; even the children like it—and they may have it. : : :

Good for all sorts of salads, and for cooking, too. : : :

(Name and Address)

would give it to the children. There would arise dozens of other ways so that where a druggist now sells one gallon he would sell ten to one hundred gallons.

Castile soap is an article the sale of which some druggists have retarded or killed by old methods. They did not handle it in the right way, and their trade buys castile soap somewhere else, or does not use it. Those who merchandise castile soap in the right way have learned to know that when people can buy castile soap in large quantities at a low price, they use it up so much faster, by wasting it, or using it profusely that they consume ten times as much as under old conditions.

Paraffin is another article which is now sold in quantities of 50 pounds frequently where formerly a pound or two was disposed of. It will be sold in still greater quantities if properly handled. Such things as glauher salt, the druggist often sells to his own injury. A farmer or horse owner goes to a grocery store or a general store and buys 5 pounds of glauher salt for 25 cents. With that quantity on hand, he uses it rather lavishly and soon comes back for more. At 5 pounds for 25 cents the grocer makes a profit of 10 cents. Instead of that, many druggists do not want to sell such goods at such a close

profit, so they sell 1 pound for 10 cents and make about 7 or 8 cents profit. To them that looks very attractive. The "rub" is that as soon as the farmer "gets wise" he goes to the grocery store and buys it at 5 pounds for 25 cents. The druggist makes a profit of 8 cents once, whereas he might make a profit of 10 cents repeatedly. No great business was ever built up on one-time orders. Unless a product or a business can count on continual repeat orders, it will always be small. The only kinds of goods worth advertising are those which, after the advertising has introduced them, will continue to sell themselves. Unless a concern can hold its old customers after it had once got them into the store can never grow to be a great business. This is a well-known axiom among successful manufacturers and retailers.

Perfumes are another line of goods that the druggist does not usually sell at as close a profit as the department store. The result is that many perfumers now say that they can disregard the drug store trade of the country—that 80 per cent. of their perfume is sold to the department store. What a sad commentary on the "penny wise and pound foolish" method of doing business! If a druggist pays 20 cents for an ounce of perfume and sells it for \$1, making 80 cents profit, he is happy, is he not? Well, he should not be, because he is killing the goose that lays the golden egg. There are many business men in the world who will sell that same perfume at 50 cents or 39 cents or 29 cents and be happy and prosperous with a 30-cent or 19-cent or 9-cent clean profit. The man who makes 80 cents profit on a 20-cent ounce of perfume, makes it only once or twice—and he makes it on the "sucker" trade.

Sucker trade is a very sandy foundation on which to build a business. A sucker is a man who buys ignorantly. New suckers may be born every minute, as the old saying has it, but how many people want to build a business on getting customers and then losing them.

Druggists carry certain articles to which manufacturers have given fancy names and try to sell at four or five times their legitimate price. Retailers have seen the trade go up and then go down, because the public found out that the standard line, sold at one-half or one-fourth the price of the trade-marked article, was good enough

for them. Any one who travels around the country will see that certain druggists have learned the merchandising lesson. They have learned that certain goods show an increased profit to them, when the individual profit on each sale has been reduced by half or more.

When twenty-nine cent candy was brought out, did it decrease the profits on candy to druggists? Certainly not! It got many more people to eat candy. After they had acquired a taste for candy they then demanded better candy. The selling of 29-cent candy has actually and greatly increased the demand for 80-cent candy. The people who put 29-cent candy on the market did not expect that offering candy at 29 cents would increase the demand for 60-cent and 80-cent candy. Nevertheless, they themselves are now manufacturing and selling vast quantities of 60-cent, 80-cent and \$1 candies.

The publisher of one of the biggest newspapers in America was asked to explain how an ideal advertising rate card in a newspaper should be made. His reply was: "I suppose that making a rate card for advertising space is just like everything else. You charge what the traffic will bear." Then he went on to explain that what the traffic would bear depended on competition and the natural law of supply and demand. "For example," said he, "if you can ship grain from Galveston to New York by boat for one-half the price that you can by steam railroad, then either the railroad must content itself with carrying only the fast freight, or it must reduce its price on grain until its quickness will offset the lower price of the boat, or else it must own a monopoly of transportation including both waterway and railway transportation." The result, he stated, was that the railroad charged all that the traffic would bear. That is, it charges the highest price that it can without losing traffic.

The same rule holds good with every product on the market. The druggist has two distinct elements to contend with. He has first of all the price that his competitors will charge (and he must not forget that his competitors are not only the other druggists of his town, but the local grocers and hardware dealers and department stores, and paint dealers, as well as the mail-order houses in other towns). In the second place, he has to contend with the consumer's own notion as to whether he (the consumer) will buy at the price which the dealer has asked. These elements are so intertwined and related and dependant upon each other that they both must be taken into consideration.

Druggists in a town can not get together and say, "We will charge \$1 per gallon for denatured alcohol."

For, along come the grocery store and the hardware store and the department store and the general store, saying: "Denatured alcohol can be bought for 40 cents a gallon. We sell it for 60 cents and make 50 per cent. profit. That is more than we make on many lines of goods. The druggists are asleep. We will take that trade away from them before they wake up." The result is that while druggists are all "standing beautifully together" in such a matter some other line of trade comes along and takes the business.

All the foregoing has so much to do with successfully advertising a drug store that it is commended to the attention of wide-awake druggists. The store which is growing is the store which is *not* driving its customers to other stores. It is the store which is holding the chance customer, the passing customer, the transient, the woman who responds to some special advertisement, and the woman who is told by a friend to come. It is taking advantage of these opportunities, of so pleasing the chance customer by price and service that she becomes a permanent patron of the store.

Not long ago a big manufacturer got his directors to-

3 Tasty
Delicious
Steaming

HOT DRINKS

Luscious hot soda drinks. Three great favorites. Steaming hot, appetizing and appealing cold day heaters.

Hot Chocolate
Hot Egg Cream
Hot Bouillon

All other sorts, too, of course. All the favorite hot drinks that satisfy the taste and chase the cold from your marrow. ∴ ∴ ∴ ∴

*And the same big list of
summer drinks all winter.*

(Name and Address)

gether and persuaded them to appropriate \$100,000 for advertising. Then the manager, in order to make sure that that \$100,000 would be spent wisely, wrote to a number of large advertisers, asking them certain questions. One question was this: "Have you found advertising to be a distinct money earning factor in your business? If so, what kind of advertising has been most productive?" Here is the answer which one very wise advertiser made: "Yes. The kind that brings re-orders. It is the re-orders that pay the expense."

There are in the advertising pages of THE DRUGGISTS CIRCULAR hundreds of suggestions on timely topics, fresh from headquarters, each one radiating life, each full of a contagious vigor. The druggist who can read these and not thereby be made a better business man is a hopeless case.

Speaking about ruts, habit, and such things, maybe a new style of label would help some drug stores. At any rate, it does not hurt to think about it. A unique label, a uniform style for everything that goes out of the store labeled, has a special value as a sort of trade-mark.

The drug business of the H. V. Chamberlain Company, of Alton, Mo., has been sold to S. D. Hallam, who will remove the stock to Madison. Harry Chamberlain, who was proprietor of the drug store, has been in the drug business for the last fifty years in Alton.

It is the sale *almost* made—the lost sale—that gives the retailer most cause for worryment, as he watches an angry customer, or even a disappointed one, go out.—Robert Frothingham, in the *Delineator*.

The two stores of the Charles Clarke & Son Co., at Lawrence, Mass. have been sold to Louis K. Liggett Co.

The Stroller.

This Free-Lance of Drug Journalism Becomes a Harun-al-Raschid of the Soda Business and Sets Down in Much Grief Many Things He Saw, Much of Which He Was.

Come hither little one and list to the story of my life. While it is sad in spots it is not so very long, so open your eyes and close your ears and it will all soon be over. When I was a lad I served a term as soda server for a small drug firm—but this is a prose story and I must not poach upon the preserves of me ole fren and fellow author Gilbert. Anyhow, I drew the soda, and I drew the trade from beyond the stores of our competitors. "Tell us the secret of your better-than-the-others' soda," said our customers.

The Secret of Good Soda.—

"There is no secret to it," I replied. "I simply use good ingredients, fresh and clean, and am liberal with them. That's all." Of course it wasn't all, for I was quick and careful and attentive and kept the fountain and the counter looking neat, and all that, but of course I was too modest, *then*, to call attention to these things.

That was a long time ago, but I have not yet forgot or forgotten—whichever is the right word—what good soda and good service is, even if I could not now get behind one of these modern "iceless" fountains with back bars and front syrup jars and hold my own with the nifty boys who pump and squirt, hump and flirt all day long and well into the night. 'Twas the old-time dog-house pattern for mine until the innovation in the shape of a well apparatus came along.

But I promised the story of my life would not be long, so let's hurry and away.

If the Public Were Only Hep, My!—

If everybody knew as well as I do what good service and good soda are, and was as intolerant of the other kind, 90 per cent. of the soda fountains that I am acquainted with would have to go out of business. And if I were the boss of the remaining 10 per cent., 90 per cent. of them would have to mend their ways in several particulars.

A Natural Question.—

Why, oh, why is it that although the secret of success in the soda business has been proclaimed as if from the housetops for years and years, many soda dispensers have not learned it, or, if they have, make such small use of their knowledge?

A Grieved Lover.—

I am still a lover of the delectable confections whose habitat is on, under or behind the marble counter, so I frequently drop into a drug store for the double purpose of gratifying my palate and observing the service. By "service" here is meant everything connected with the making of the drink—the fountain, the attendant, the glasses, counter, silyer, straws, chairs (or lack of them), and, of course, the quality of the drink itself. Only now and then am I impressed favorably, whether the service under observation is on Broadway or at Cobb's Corners.

Experience Number One.—

In a Broadway store I asked for a malted milk. The attendant was a courteous young man who inquired if an egg were wanted in it. I said I would have an egg. The drink was quickly prepared and was all that could be asked for. I began to nibble at a cracker which was in easy reach, and the attendant asked if I would try a sandwich, at the same time suggesting in a pleasant way that it would be found very good. Again I agreed to be the goat to this extent. The check amounted to 25 cents and the transaction was agreeable all 'round—except that the attendant had very long finger nails under which had accumulated a most noticeable quantity of very dark ma-

terial. Horrors! And suppose I had been a real lady. More horrors and more of the other things—!!! (Yes, Mr. Printer, that's what I wanted. Thank you.)

Disappearing Done While You Wait.—

Tell me, Mabel, didst ever see a brood of chickens with the old hen out in the grass one minute, and the next minute, after the hen had given the warning cry that something which might be a hawk was flying around, look in vain to find a trace of a chick? Well, that is the way with some soda clerks I have tried to meet—and I'm no hawk and they are no chickens, but on the other hand I am one who brings into their place of business that where-with their salaries are paid. Isn't it funny, Mabel? I have enjoyed (?) this experience many times, and the clerks did not know me, either; did not know that I was a scribe taking notes to print. Here is a case in point:

One Man Who "Came Back."—

Being so well pleased with the malted milk found in Broadway, I, the Stroller, a modern Harun-al-Raschid of the soda fountain going about in the trade unknown to those upon whom he called, dropped into a bright-looking store in a select neighborhood. There was no one in sight except a negro porter, and he was beating it rapidly, as if trying to beat the band, when I hailed him to come back. He came back, although the sporting editor informs me that this is most unusual. I asked him if a glass of soda could be purchased in that place. The porter reckoned so, and proceeded to mix up the concoction in a way which showed that he had been permitted to 'tend the fountain before. The drink was—well, it certainly suffered in comparison with the Broadway beverage, although if there was any dark-colored material under the porter's finger nails other than what nature put there, it did not show. Being a descendant of Ham is not without its advantages. While this drink was passing away, the rattling of a newspaper behind a counter revealed the hiding place of the proprietor—who probably would say that a soda fountain is more trouble than it is worth. A modern fountain, properly attended to at this stand would probably yield a pretty nice little income.

And Another.—

Just here I might mention that I played a return engagement in this store: you see I did not wish the porter to think he was the only one who could come back. This time the drug clerk played the role opposite mine. The supply of milk happened to be a bit shy, so I told him he might piece out the contents of the glass with vichy. Evidently not suspecting that I knew the difference, he filled it with "plain soda." When I called his attention to this fact, he said that he had supposed that carbonated water was what I wanted, especially as vichy and milk did not mix well. (Doctors and nurses who have been giving vichy and milk to those whose digestion is too weak to get away with plain milk, should take notice.) But that drug clerk had the better of the argument, as he charged me an extra 5 cents for what little milk he did put into the mixture, making the price of the arf-an-arf-an-arf 15 cents. The Broadway price for the real thing was only 10 cents, and that's what the colored man had charged me before at this place. When it comes to being a goat I am a star performer. But then I get the material for a story; what about the general public when they are held up?

Let 'im Wait—What Do I Care?—

At one of the most popular fountains in upper Broadway I stopped for a little liquid refection. I seated myself comfortably at the counter and tapped my toes on the floor for what seemed to me several minutes before the white-coated young man in attendance finished polishing some spoons. It probably was not more than 90 seconds by the watch, but even so, that was just 89½ seconds too long for a clerk to keep a customer waiting while doing work which could just as easily have been done after the



customer had been served. Some bright young soda dispensers rise to high positions in the manufacturing and selling line, while others stick to the dispensing business until rheumatism or some other kind of jinx puts them to the bad.

Great Possibilities in the Soda Business.—

One of the largest dealers in soda water in the United States, the proprietor of a long, strong chain of drug stores, told me that one of the principal troubles he experienced in his business was the difficulty in getting a suitable head for his soda department. "We have been hunting a year or so," said he, "for a man who could make syrups and run fountains, without possessing too many drawbacks in his make-up." By way of comment and emphasis he added: "We wish the young men of the country could realize what a limitless opening, with good pay, there is for those who have skill, judgment, sobriety and honesty to recommend them in the soda business. They are not to be found. In most cases there is some essential lacking. The best soda man we ever knew didn't have two honest hairs in his head." Maybe the man was bald-headed, but let that pass. The point is that young men in the soda dispensing business, instead of preparing themselves for places of responsibility and high pay, keep customers waiting while they polish the spoons.

But that is not part of the story of my life. I beg pardon for the digression. As a buttermilk statesman once said, one step from the beaten path and we are in the tall grass, or words to that effect. Back to your knitting, Terese.

Stung Again!—

The next time it wasn't a milk drink but a ginger ale that my palate craved. I ventured into a little basement shop in a high-class residential section, and indicated my desire. The clerk took a bottle out of the ice box, poured its contents into a warm glass, much of its gas being thereby liberated, and served the drink without ice. It was not very cold, the ginger ale, I mean, not the weather, so I asked for ice, and the clerk broke off a small chunk and dropped it into the glass with his hand. Nothing was said about price, but when a dollar bill was passed over to the clerk, he handed back only 75 cents in change.

What's that about being a goat?

One Thing at a Time.—

In one store in which this "Harun" often finds himself the soda clerk jokes with his girl and boy friends around the counter while serving customers. The fountain is O. K., as are the drinks which come from it, but—well, probably if I said anything about it the fountain folks would think I was a chronic grouch; and the high-salaried positions as head dispensers go begging.

"Whadger Want?"—

On a trip out of town I, being the only original and genuine Observer of Things as They Are in the soda trade, stopped in a very busy corner store in a small city and asked by name for a certain well-known bitter drink. It was not there. I then asked for root beer. Root beer was not served at that fountain. "Well, what have you in bitter drinks?" I inquired. "Whadger want?" came back from the half-grown young man behind the counter. As I thought I had already given a fair idea of what I wanted, I went a few doors down the street and succeeded in getting a root beer so well served and so palatable (palatable largely because well served) that I took another.

Home-Made Slops and Imported Cream.—

"What can you give us in the way of some fancy sundaes?" was asked in another city in a strange store which I, seeking for information and pabulum, had entered with a certain girl I know. "We have no fancy sundaes, only plain ones," replied the soda boy. He dished out some ice cream which would have felt complimented at being called half-frozen, and over this poured some ready-made "marshmallow cream" shipped in a tin can from a factory a thousand miles away, and even at that a good deal better than the home-made ice cream. The whole was served in an exceedingly sloppy manner over a counter that could have been improved by the use of soap and water. The proprietor, an affable and well-meaning man, came up and had something to say about the marshmallow cream, something new in the store of which he was evidently very proud.

A Small Straw Shows the Way a Fly Specks.—

Once I ordered a soda at a pretty good place and was congratulating myself upon the fact that it was served promptly and neatly, when with a quick movement the dispenser caught up a couple of straws which had been serving as roosting places for languid typhoid flies, and was about to stick them into the glass for me to stick into my mouth. I beat him to it, however, getting my hand over the glass a tenth of a second too quick for him. The umpire having decided that I was "safe," I took just enough time before proceeding to imbibe my beverage to advise the young man to dump his fly-specked straws into the sewer and use either a fly-proof container for a fresh lot, or to buy straws sealed in individual envelopes. Is a man blind not to see the flies on the straws, or an idiot to expect fastidious customers to suck the specks off the ends as they drink their soda? That man will not be ready for the big-salaried places near the top until after he has read this little bit of autobiography. If he says "Poof!" when he reads it, he will never be ready, but will hang around until the jinx gets him.

Where Haste Is the Prime Consideration.—

In the big downtown stores of New York, where it is usually a case of grab it, gulp it, and "beat it," rapidity of service is one of the principal desiderata, although much more than this is necessary in order to get people to coming back regularly—and no fountain business can exist, even in lower Broadway, without a goodly proportion of "repeaters" among its customers. I do not patronize these hurry-up places often, but go into them once in a long while to observe how business is done there.

L'Envoi.—

All of which is true, or I should not have written it. But that is not saying that I have written all that is true. And I am sorry—sorry because I am a friend of the soda business and of the men in that business; sorry because I know that that business, as rapidly as it is growing, would grow still more rapidly if those in control of it would only cease holding it back by their own actions; and sorry because I like good soda, served right, and experience so much difficulty in finding it.

One good thing about an inventory is the way it enables the druggist to find some old stuff that has been pushed over behind other goods and forgot. Maybe it is a good seller and has been lost accidentally, or maybe a "sticker" that has simply been worked back to the rear by natural processes. In either case it is well for it to come to light, for, if it is worth face value it can easily be turned into ready money, and if it is a has been, it ought to be made to go at any price and give place to its betters.

As recently as 1884 "hot soda water" was understood to mean a beverage made of such syrups as were used in making cold soda water at that time, into which hot water had been forced under pressure through a "goose neck." An article on the subject, with a diagram showing how the pressure in a city main might be utilized, appears in the CIRCULAR for that year, page 173.

Occasionally some druggist writes to say that one formula in the CIRCULAR has paid him ten times as much as his fifteen or twenty years' subscription has cost. As a suggestion, how about a workman's hand soap or a ladies' quince seed chap lotion? Formulas for seasonable preparations are coming out in each number, but they benefit only the live ones.

Somebody has said that it is not the taste but the odor of castor oil that makes it so disagreeable to take. By the same token it may be that the neat, clean, attractive surroundings of a fountain have a lot to do with making the soda water good; and that the reverse in appearance has a bad effect on the taste of the beverage.

One moment please. Has the reader an own-make "pure food" extract of vanilla better than can be picked up any and everywhere? If not—but what's the use of explaining, since the wise guy has already tumbled and the other sort never will?

Water is cheap. Even carbonated water is not very costly. A little of one or the other "on the side" is often wanted by a soda customer, and for the dispenser to "serve" this want and do the proper thing is to make a friend.

Effective Home-Made Window Fixtures.

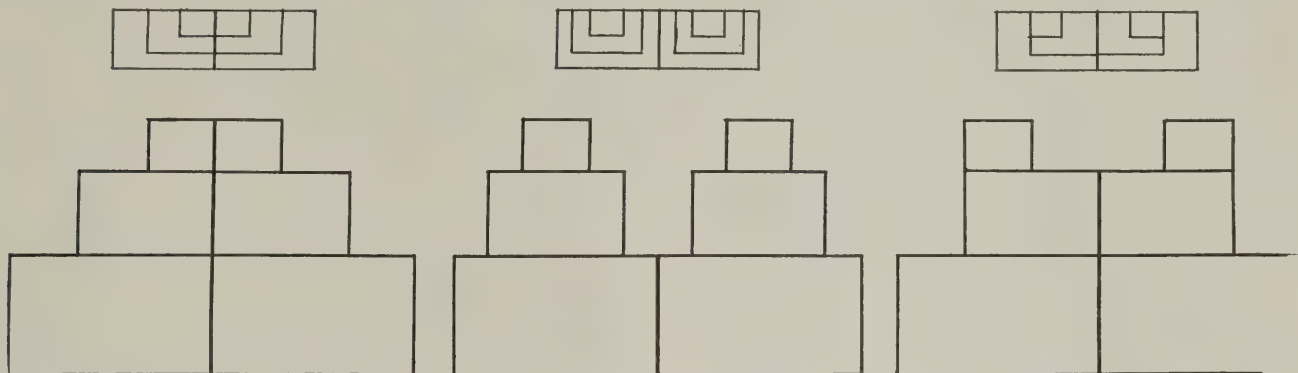
Home-Made Window Display Fixtures Which Cost Nothing At All—Diagrams Embodying Suggestions as to How They Should Be Used.

BY THE STROLLER.

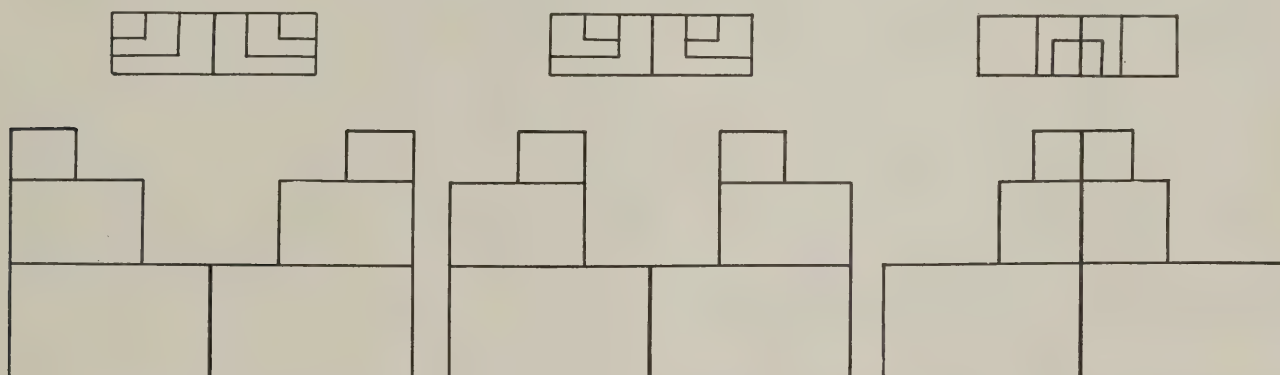
What's all this that clerks are saying about not making window displays because the "boss" will not pay for a set of fixtures? Cut it out—there is nothing to it. Any poor

friend. Go dig them out and instead of complaining about that "boss," proceed to show him that there is more in you than merely an ability to pass goods over the counter and fill a prescription now and then. My goodness, gracious, mecius! Brush those cobwebs from the windows and what-ever-it-is from your mind, and get busy.

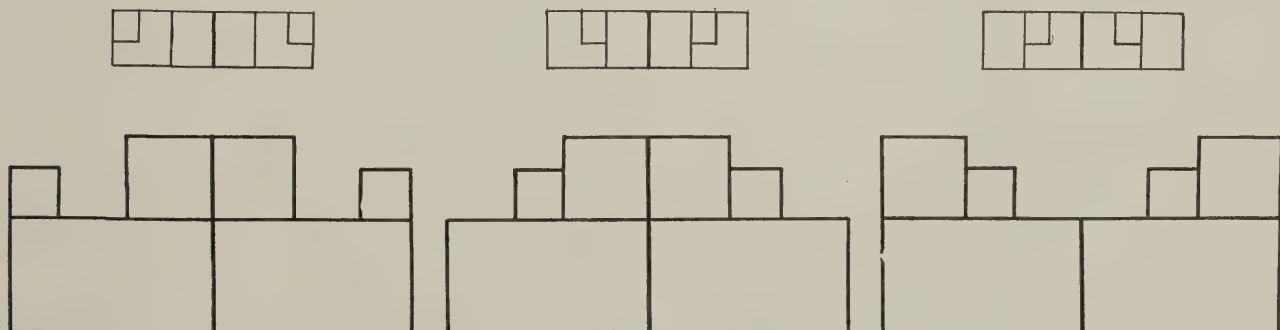
In the first place, find two boxes that once held, say, a dozen bottles of shoe polish each; then two more in each of which a dozen cartons of some large dollar "patent" was packed; and then two more that once did service as containers for a gross of soap or two dozen cans of pineapple or something of that sort. Anyhow, get a pair of



Diagrams Showing How Three Pairs of Small Packing Boxes May Be Used as Window Display Fixtures.



The Same Six Boxes, Arranged Differently. Small Diagrams Represent the Floor Plan.



A Still Further Variation of the Arrangement of the Six Boxes.



Floor Plans for Two More Arrangements.

workman can blame his tools, but the good workman goes ahead and turns out a passable job with any old tools at all.

There are fixtures for window displays in the cellar,

wooden boxes of suitable and uniform size and shape, say about 10 inches or so high; two more, about the shape of the first two and about 7 or 8 inches high; and a third pair, resembling the others in shape, but a size or two smaller than the last mentioned. Now then, Bill, you have your fixtures. A package of crepe paper completes the outfit.

What may be done with this set of window-display accessories is suggested by the diagrams which I got a fellow to draw for me, presented herewith. The large drawing in each group shows the appearance of the boxes when placed in the window and viewed from the street. The

smaller diagram may be spoken of as the "floor plan"—that is, it shows how the boxes are imposed upon one another from the standpoint of one who is standing over them. Of course, as I said in the first place, these are merely suggestions; any ingenious clerk can take these six boxes and arrange them in such way as to give a variety of effects. Indeed, there is nothing in sight from this point of view to prevent him from amplifying the outfit by adding other boxes if he sees proper to do so. Possibly there may appear in some future issue of the CIRCULAR—if the editor does not shut down on my style of stuff—further suggestions as to what may be done with these six boxes—and a few more.

Just here I may add that for the sake of safety, a little ballast in the shape of bricks or belgian blocks may be concealed in the boxes. Is it necessary to mention that the crepe paper is to be used for covering the boxes and for carpeting the floor space in the window?

In order to learn whether I have touched the spot or not, I should be glad to hear from those who adopt or adapt these suggestions; and should like to receive for publication, with due credit to the sender, photographs or descriptions, or both, of window trims in which this kind of fixtures figure. Now, don't everybody wait to see what the other man is going to do about sending in the descriptions and photos.

Formulas for Hot Novelties.

Formulas are intended largely as suggestions—a sort of basis for experiments. A mediocre dispenser will mutter of many of them, "No good," and pass them up; but the A1 man with a keen understanding of possibilities will say to himself, "Properly varied to suit circumstances, that should make a good seller," and try his hand on the variation.

From among the many formulas that have appeared in the various journals lately, a few have been selected and are presented herewith:

Hot Cherry Phosphate.

Cherry juice, 12 ounces; sugar, 1½ pounds; water, 6 ounces; solution of acid phosphate, 2 ounces. Draw about 2 ounces in a mug, and fill with hot water.

Clam and Ginger.

Clam broth, 1 ounce; butter, about ¼ ounce; ginger, a pinch; hot water, to fill an 8-ounce mug. Serve with pepper, salt and celery salt, with a few crackers on the side.

Malted Egg.

Malted milk, 2 teaspoonfuls; egg, 1 fresh one; hot milk, enough. Rub the malted milk with a little of the hot milk; add more hot milk, and the egg, and shake well. Fill the mug with hot milk, stir, and top with whipped cream.

Hot Ginger Ale.

Soluble ginger ale extract, 10 drops; soluble lemon extract, 10 drops; sugar, 4 cubes (or teaspoonfuls); fruit acid, 10 drops; hot water to fill the mug.

Egg Bouillon.

Into a mixing glass break 1 egg and add 2 teaspoonfuls of extract of beef. Season with pepper and salt. Add 1 ounce of hot water, and shake thoroughly. Strain into a mug and fill with boiling water.

Cream of Tomato Bouillon.

Into a mug pour 1 ounce of tomato bouillon and add 1 teaspoonful of extract of beef and ½ ounce of sweet cream. Fill the mug with hot water and serve with seasoning and wafers.

Hot Lemonade.

Into a mug draw 1 ounce of lemon syrup. Into this squeeze the juice of 1 lemon, and fill with hot water.

While it is poor policy to try to wait on two customers at the same time, unless they are together, it is also poor policy utterly to ignore a customer who is waiting for a drink while other customers are being served. A mere nod of recognition will develop patience in the waiting customer, where, without it, enough impatience might develop to cause resentment and the loss of not only one sale, but many.

Habit-Forming Drinks at the Fountain.

At the recent convention of pure food and drugs officers held at Duluth, the question of the sale of fountain beverages containing habit-forming drugs came up for discussion. The report of what followed, given below, is from the *National Bottlers' Gazette*:

"Dr. S. J. Crumbine, of Kansas, started things along this line. He admitted that the Kansas department had been unable to find cocaine in a certain Atlanta product, which is the genuine coca-cola. He said that numerous instances of the drug's tendency to habit forming had been reported to him, and that in the South he had been informed that people stood in line for hours in front of drug stores in the early morning waiting for them to open so that they might get their 'eye-opener.' He had instances reported to him of boys and girls in his State who were rapidly acquiring the coca-cola habit, and was at a loss to explain it.

"Commissioner Bailey, of Oregon, also reported a failure on the part of his department to locate cocaine in coca-cola, but said that it was undoubtedly habit-forming, and he could not account for it.

"Commissioner De Barr, of Oklahoma, then proceeded to throw some light on the subject. He said that he had been working on the coca-cola subject for three years and that while he never found cocaine in the Atlanta product, he had examined some ninety-three substituted drinks sold by druggists in his State as coca-cola, and very similar to it in appearance, all of which did contain cocaine with the exception of three. All these alkaloidal drinks are habit-forming and harmful, said Commissioner De Barr, and their distinctive names do not mean anything and should be eliminated and descriptions of their contents required. They are, according to Mr. De Barr, among the most pernicious articles on the market for public consumption. He knew personally, he said, of three or four people who had been using these drugs habitually. One young man attending the Oklahoma State University required a double glass of the drink three times a day at regular hours to keep him normal, so excessive had become his use of them.

"Dr. Ross, commissioner from Alabama, was next on the list of protesting food experts, and he testified that the caffeine present in all these drugs was habit-forming and harmful, though the effects as he had noticed them were not as bad as he had heard described during the morning."

Some Dicta for Clerks.

In a recent issue of the *N. C. R. Weekly*, which circulates among the selling employees of the National Cash Register Company, appear the following dicta:

A clerk has many an opportunity to get new customers by favorably speaking of the store and its proprietor to his friends. Always boost the man who employs you. When you get to the point where you do not do this it is time to look for another position.

Punctuality is one of the requirements of a successful clerk. Being the first at the store in the morning is a good recommendation for any clerk.

Do not always wait to be told what to do. Use your judgment if it is backed by sufficient reason.

The desire to do something more, and better, than others were doing, led our ancestors to sail the ocean and conquer new lands.

Ambition raises men above their fellows. It lifts them out of the rut, which is little better than the grave.

Clerks can show their ambition in many ways:

Study details. Personal appearance and cleanliness are of the utmost importance to progress. The impression made on your employer and his customers means everything to you. His customers are your customers.

Be punctual. Make a record for yourself. Always be on time. Your pay envelope represents your value to your employer. This depends on you. A few minutes a day soon mount up to days, and no man will calmly sit by and see days of his valuable time wasted.

Be careful. The greater your care, the fewer losses and errors you will make. There is more loss in retail stores through carelessness than in any other way. Employers encourage men who do not spell loss to them.

Be resourceful. Grasp every opportunity to learn more—about goods, markets, prices, salesmanship—everything useful in or out of your business. When you are too old to learn, your life's work is done.

Be courteous. Set an example to your fellows on polite and considerate treatment of customers. This will soon make you leading salesman in the store, and increase your employer's trade. This means more money for you.

One good thing about the man who is always carrying on an active campaign for more business is that when it does come along he is awake and ready to welcome it.

Courtesy at the Soda Fountain.

By E. H. SHORTISS.

At this time of the year when we are looking forward to a better and busier hot-soda business, the question arises, What can be done to double the sales of last year and at the least expense possible? The public are drinking more hot soda beverages from year to year, and know a good drink; they remember the place where they had a good, delicious, hot one; they remember the service; and they very often go out of their way to Smith's or Black's for another, as they know it will be worth while.

First of all, the dispenser should have a good urn. He should keep it going, good and hot; and he should be sure to supply himself with a good chocolate, best of milk, lots of whipped cream, and the highest grade of beef cubes, malted milk, essence of ginger, tomato ketchup, and the rest. Then he should be generous with his salt, his pepper, his celery salt, his crackers, his napkins and, by all means, with his courtesy. Then his sales will increase.

It is but little or no trouble to ask if the beverage is just right, or too hot, or too cold; to inquire if a little more sugar, or milk, just a little more salt is wanted; or to exchange an unsatisfactory drink for something else. All these small courtesies are appreciated by the patron, and are never forgot.

To the druggist let me say: Don't be stingy or mean. Don't think that women customers do not know a good hot chocolate when they taste it, for they are, as a rule, expert cooks and have made many gallons of cocoa at home. Be pleasant at all times, and just sociable enough. Keep signs on your window and soda fountains. Be sure that your cups and utensils are clean and bright and your silverware well polished. Dispensers should wear clean, white caps, coats and aprons.

By all means, let people know that you are in the hot soda business, not merely as a side line, but that you are featuring the winter business. The average soda man throws up his hands when winter comes. He looks at the cold-weather business as a losing game. If he will only put his best efforts and ideas into the hot line, read the journals, try a new one now and then, and keep at it, he will succeed if there are enough people in his town for him to work on. Hot soda profits are very good, and selling the hot drinks holds the customers for the cold one.

There are many good formulas: I am using these this fall and getting good returns and many compliments:

Hot Chocolate.

Best powdered cocoa.....	8 ounces.
Sugar	2 pounds.
Water	1 gallon.
Milk	1 gallon.
Extract of vanilla.....	2 ounces.

Mix the cocoa and the sugar, add the water and bring to a boil; add the milk, and again bring to the boiling point. Then strain and add the flavor. Put this in the urn, fill the mug and top with whipped cream, sweetened and flavored with vanilla.

Hot Malted Milk.

Malted milk, 2 teaspoonfuls; hot water, $\frac{3}{4}$ mugful; milk, enough to fill the mug. Top with whipped cream, and serve with salt and pepper.

Beef Tea.

One cube of beef extract. Fill the mug with hot water. Serve with pepper and celery salt.

Tomato Bouillon.

Beef extract, 1 cube; tomato ketchup, teaspoonful; hot water to fill the mug. Serve with pepper and celery salt.

Hot Ginger.

Strong ginger syrup, 2 teaspoonfuls; hot water, enough to fill the mug. Top with whipped cream and grated nutmeg.

Beef Malt.

Beef extract, 1 cube; malted milk, teaspoonful; hot water, $\frac{3}{4}$ mugful; milk enough to fill the mug. Top with whipped cream and grated nutmeg.

Oysterette crackers are acceptable to most customers and cost but little. Paper napkins cost \$1 a thousand; window signs or cards, from 50 cents up; menu cards, \$3.50 a 1000 up. The cost of hot soda per mug I estimate to be 3 cents, and gas for heating the urn costs 3 cents an hour.

The Gasoline not All of an Automobile.

By GEORGE W. HUGHES.

While quality is a big word with the up-to-date dispenser of soda water, appointment and service must not be overlooked. Odd-shaped glasses for fancy drink, silver sundae cups, and good plate, are a few of the hundred and one things that help toward drawing the better class of trade, which means better prices. The best ice cream to be made, with fresh fruit slopped over it, served in a cracked glass dish with a brassy spoon, does not taste half as good to most people as a very ordinary sundae served in immaculate surroundings, on a dainty silver tray. While I am a stickler for quality, if it came to a show down, I would sacrifice a little of it for appointment and



E. H. SHORTISS.



GEORGE W. HUGHES.

service, if sacrifice there had to be. Every soda dispenser would do well to bear in mind the fact that while he may be buying the best cream and syrups, all his competitors who amount to anything are buying about the same grade. So, I would advise him not only to buy the best of everything, but to bend his energy toward good service, and to show good taste and judgment in his appointments. The quality of the gasoline can't make a two-cylinder runabout hit the grit like a truly six joy wagon, although it may keep the carburetor from clogging.

Here's a formula:

Banana Martinique.

Split a banana in two, laying the two halves side by side on a dainty china dish. On these put two small balls of ice cream of different flavors with a spoonful of whipped cream on each. Sprinkle thickly with dried macaroons and top with a couple of cherries. This sells for 15 cents or 20 cents, and takes well.

A Successful Soda Dispenser.

Since the soda-water business has grown by such rapid strides to be the enormous affair that we now see it, a study of some of the men who are soda experts and have done much to make the business what it is, seems to be in order. Prominent among these men is George W. Hughes, whose timely notes and attractive workable formulas are published in this department of the CIRCULAR every now and then.

In the first place, Mr. Hughes is the son of a druggist, a man who was one of the pioneer modern-school soda-water dealers of Jacksonville, Fla. As soon as he was born thirty-three years ago, the son was, so to speak, in the soda business, first as a looker-on and consumer, and later as a producer, Hughes père, following the custom of the time and plan, charged his own fountains, using the old-style copper generator which is associated in the minds of so many of us with our early experiences in the soda business. He served no ice cream, but dispensed a cream syrup, made of condensed milk, eggs, sugar and water. Among other things with which the present-day soda man is not so familiar, there was served at the Hughes fountain a mixture known as cream puff, containing much gelatin and drawn from a tank through a regular draft arm. It was snowy in appearance, like beaten egg whites, and was used as a topper.

The lad became a good hand at the fountain, and equipped thus to do battle with the world, he started out.

He has seen something of that part of life visible over a soda counter, in most of the cities on the Atlantic seaboard, and says that he recalls most of his engagements with pleasure and satisfaction. About a dozen years ago he became a New Yorker. At that time the old William Wilson store at the southwest corner of Broadway and Thirty-fourth street was an all-night institution which was just about in the center of everything connected with the gay life and the sordid life of Broadway, Sixth avenue and the adjoining sections of the city. From the soda counter in this store Mr. Hughes saw much of high and low life. He was with Mr. Boisnot when he opened the store in the Ansonia, Broadway and Seventy-fourth street; was with the main store of the Hegeman Company when it moved from its old stand at 196 Broadway to its present large building at number 200; had charge of the Riker fountains in Brooklyn at the time the Bolton stores were absorbed by the larger concern; and went from that position to the Times Building, Broadway and Forty-second street, to manage the new Hegeman fountain there. About three years ago Mr. Hughes went to Pittsburgh and took charge of the soda department for the May chain of stores for a salary and commissions on increased business, a plan which he thinks is a good one. A short time ago he left the May Company to become manager of the Fountain Lunch in the Jenkins Arcade Building, in the same city, on a commission basis, and is "making good."

Regarding the present outlook and future prospects for the soda business, Mr. Hughes says: "It is not a bad business if one sticks to it and gives it the best he has in him."

"The systems and methods of doing business in the different cities and localities are very interesting to those who watch and study them, and the growth and popularity of the fountain is truly remarkable. A few years ago the average dispenser looked upon ice cream as a little out of his line, but to-day few of us would dare try to do without it. In like manner the luncheon is now regarded with suspicion if not actual disfavor by a majority of druggists with fountains, but it seems to me that the sooner the soda man goes after this feature of the business, location and other things being favorable, the sooner he will be able to promenade on the right side of that comfortable and not overcrowded thoroughfare known as Easy street. But the man who starts for the luncheon pennant must keep his wits about him and be fast between the bases."

Six Egg Drinks.

World's Pennant.

Shake well together 1 egg, ½ ounce of vanilla syrup, ½ ounce of pineapple syrup, a spoonful of ice cream, and a spoonful of cracked ice. Nearly fill with the fine stream. In another glass have nearly ½ ounce of crushed strawberries, and into this pour the mixture with sufficient force to blend the whole together into one harmonious 15-cent drink.

Raspberry Egg.

Mix thoroughly ½ ounce of raspberry vinegar, 2 ounces of raspberry syrup, 1 egg, and a spoonful of shaved ice. Fill the glass from the coarse stream and strain.

Happy Days.

Grape syrup, 1 ounce; orgeat syrup, 1 ounce; sweet cream, 1 ounce; fresh egg, 1 only; cracked ice, enough. Fill the glass with the coarse stream, strain, serve, and ring up a 10-cent fare.

Egg Chocolate Milk.

Chocolate syrup, 2 ounces; fresh egg, 1 only; ice cream, about the right quantity. Shake. Fill the glass with milk, and shake again. Top with whipped cream and a little grated cinnamon or nutmeg.

Egg Lemon Phosphate.

Lemon syrup, ½ ounce; grape juice, 1 ounce; fresh egg, 1 only; powdered sugar, 1 spoonful; solution of acid phosphate, a squirt or two; cracked ice, enough. Shake together and fill the glass with carbonated water. Strain, serve, and look pleasant.

Egg Lemonade.

Squeeze 1 lemon in a glass; break an egg over the juice; add enough simple syrup to sweeten, and enough ice to cool. Mix by turning on the fine stream. Powdered cinnamon bark may be used with this. Don't watch the man too intently while he is drinking, it might embarrass him.

Pineapple at the Fountain.

Pineapple is an aid to digestion, due to the bromelin it contains (see the dispensatories). It is also very grateful to the palate of most lovers of fruit and soda water. Canned pineapple is almost as fresh as the fruit shipped whole, and for some purposes is preferable to it, having been picked when it was ripe, while the fresh fruit usually is allowed to ripen after it has started on its journey to market. As many of these points as are suitable to the case in hand may be used in recommending pineapple drinks, either orally or in written or printed advertisements.

Pineapple Parfait.

Place a slice of pineapple on a dish, place on it a portion of vanilla ice cream, and top with a cherry.

Pineapple Fruit Mixture.

Make as the above, except that instead of the cherry, pour over the ice cream a ladleful of mixed crushed fruits.

Pineapple Freeze.

Pineapple syrup, 2 ounces; grape juice, ½ ounce; shaved ice, enough. Fill the glass with carbonated water, alternating the fine stream with the coarse.

Pineapple Sundae a la Brazil.

Place a slice of pineapple on a dish, put on it two small cones of different kinds of ice cream, pour over this a ladleful of crushed fruit syrup, and sprinkle chopped Brazil nuts over the whole.

Pineapple Cheer Up.

On a slice of pineapple on a dish place a cone of ice cream, and pour over this a ladleful of chop suey dressing. Top with a cherry.

Pineapple Delight.

Put a ladleful of ice cream on a saucer with sweet wafers on the side. Pour over this a ladleful of crushed pineapple containing a few cubes. Top with grated nuts.

A customer who is asked to drink soda through a fly-specked straw would be excusable if he never set foot in the store again.

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THE DRUGGISTS CIRCULAR

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WHOLE NUMBER 660

Still After Dr. Wiley.

President Taft's decision to keep Dr. Wiley in office must have been a hard blow to those whose financial profits are increased by the adulteration of foods and drugs.

The adulterators and misbranders and those who were in sympathy with them had long been waging a relentless warfare against all who frustrated their plans. Almost every conceivable means had been employed by the "interests" to oust those who seemed determined to thwart their every scheme to get around the law. Their fire centered on Dr. Wiley—the man who gives the public the benefit of the doubt. If everything that has been said and written and done, directly and indirectly, to undermine, belittle, malign, and discredit this man, could be told in type, the story would furnish some of the most sensational reading that the American public has ever seen—and that is saying a great deal. Powerful political, financial and manufacturing interests have conspired against the people, and with Machiavellian ingenuity have invented arguments, distorted facts and uttered innuendoes in their frantic endeavors to undo the man who more than any other has stood between them and their intended victims.

After having failed in all their previous diabolical plans these conspirators seized upon the Rusby incident, and by working secretly had laid a mine under the chief of the bureau of chemistry which, when it was exploded, they hoped, would not only retire him to private life discredited but would at the same time rid his bureau of several other workers who were not amenable to the kind of influence the conspirators know so well how to exert. Their plan was working grandly. There seemed to be not a single thing in the way which could make it go awry. Charges were lodged against the chief and several of his assistants; these charges were investigated; the findings of the investigators were approved by men so high up that there was only one man higher; and the explosion was just about due when—something unforeseen happened: the newspapers and the public learned for the first time of what was going on. Then the explosion occurred, but not with the results anticipated by those who had so carefully planned it. When the smoke and dust had cleared away and the work of removing the debris was begun, it was found that Dr. Wiley was not only unscathed but that he was in a stronger position than ever before; while some of his enemies in his own department who had been trying

to thwart him at every turn—and had succeeded in doing so at many—were shown up in their true light. The one man higher up, the president of the United States, had taken the matter in charge personally and had disposed of it, at least temporarily, in a way calculated to conserve the interests of the people. It was necessary only that the people should see in order that they should win, and they saw just in time. The nearer one comes to success without achieving it, the keener his disappointment, so we may well imagine the feeling of the "interests" when they played what they thought was the winning high card and had it trumped.

But the "interests" while routed were not demolished. They work all the time. They received a blow which was severe but not fatal. They have renewed the attack, not openly in favor of adulteration and misbranding; oh, no, that *would* be fatal. They protest that they favor the principles of the food and drugs act but object only to some of the methods employed in its administration. Robbed of all its verbiage and sophistry the argument of these interests amounts to this: We do not object to the law; what we protest against is its enforcement.

In the August number we had something to say about the Advertisers' Protective Association which claimed to represent firms spending millions a year in advertising, yet had its headquarters in a post-office box. This "association" tried to coerce the press by referring to the amount of damage that was being done to food and drug manufacturers by the law forbidding certain lying on labels, and connecting this alleged damage with a threatened curtailment of advertising appropriations. This is only one of the many agencies through which the interests are carrying on their despicable warfare from ambush. Lately there have been received at this office by mail three sets of reprints, all different, from journals which are notoriously of the get-Wiley-at-any-cost, we-have-our-own-good-reasons variety. Two of these were in envelopes bearing the St. Louis post-mark, while the third envelope was post-marked in this city. None of them bore any sender's name. There is nothing especially remarkable about this, but it is worth noting that there is a certain peculiarity about the wording and typing of our name and address on each envelope which indicates clearly that they were taken from the same list and that the work was done on the same typewriting machine. Seemingly to avert suspicion the sender chose envelopes quite dissimilar,

but in this he so far overshot the mark as to put himself in the category of the lady who doth protest too much. Now who is so vitally interested in the "canning" of Dr. Wiley, and why is he working anonymously and directing his campaign from different cities?

Congress will soon convene again; President Taft has returned from his tour of the country; changes in the department of agriculture which have been officially forecast will soon be in the making, if they are not already; the president with his fine judicial mind sifted the charges against Dr. Wiley and found them both base and baseless, and unless something is done to work up a public sentiment against the champion of pure food and drugs, Mr. Taft will doubtless see that any changes to be made in the department of agriculture will not be detrimental to the Wiley influence. Hence, there is no lack of incentive for an anti-Wiley propaganda.

The making and the executing of all laws in this country rests finally with the people themselves, and now that the people have some understanding of the difference between pure food and drugs and the other kind, and know something of the reasons for rigid laws, honestly enforced, to suppress poisoners, adulterators, misbranders and the like, we may rest assured that there will be no permanent return to the old days when the "interests" had things their own way; and no temporary return to it unless these "interests" succeed in their persistent efforts to stab to death those on guard and chloroform the public generally. No profession is more vitally interested in the success of the people's side of this controversy than the profession of pharmacy. The public's cause should have, and we are glad to be able to say is receiving, the pharmacist's support.

New Yorkitis and Telephonectomy.

Citizens of less favored communities, when they wish to humble or reproach a New Yorker, do not refer to the dirtiness of the streets of the metropolis, as Chicago has dirty streets; nor to the crookedness of the thoroughfares in its downtown districts, as Boston has crooked downtown thoroughfares; nor to both the dirtiness and the crookedness of its politics, as Philadelphia's politics are not free from these characteristics; nor to its horse-cars, as its subway system is more than an offset for that anachronism. No, when the visiting citizen would "snoot" a New Yorker (as Myra Kelly might have said), he opens up like this: "You New Yorkers will stand for anything." When asked to particularize he is not at all at a loss. "See the way you stand for being hustled and pushed and slammed and banged into the cars by the hired minions of greedy corporations," he says. The New Yorker makes some kind of faint explanation, mentioning the crowd and the hurry, but the visitor does not seem to be much impressed, as he continues: "And you New Yorkers pay the highest rents of any folks in the world for your living apartments, yet tremble with dread at the thought of supplanting your landlord to give you the steam heat

and hot water, the electric light and elevator service that you pay for; do you suppose for one instant that Baltimore or Cincinnati would stand for that?" The New Yorker apologizes by calling attention to the limited amount of space available for building purposes in the city, feeling as he does so that his position is a weak one. "And see the way the ticket speculators 'put it all over you' every day in the year and about once every generation when your baseball club happens to be playing in a world's championship series," relentlessly continues the provincial. "Would St. Louis or Pittsburgh stand for that? Not on your life."

If the visitor to the city happened to be a druggist and the question of telephone tolls came up, he would perhaps relieve his mind in some such fashion as this: "That's another place where you New Yorkers give me a pain. You pay for a subway and then pay to be mauled about in it twice a day; you support your landlords in really lordly fashion and send their families to Europe every year, while you meekly take orders and insults from their negro janitors when you are at home, or dodge their automobiles when you are on the street; you submit to whatever anybody has a mind to hand you, and confine your protests to writing letters to the papers to which you do not dare sign your names. You druggists are no exception; you make it possible for the telephone company to do a large and profitable transient business with the public; you pay an exorbitant rate for your own telephone service, supply the company with a pay stand free of rent, supply change and attendance to the customer, and deliver messages around the neighborhood free of charge, and then cringe before the telephone overlord, hat in hand, and plead with him to let you have a little crumb of commission for doing his work for him."

By this time the "come on" has warmed up to his subject in good fashion, and goes on in fine stump-speech style to berate the druggists. Hear him: "Look at Philadelphia. What did the druggists there do? They told the telephone company what they would work for, making sure that it was a plenty, and added that the company might sign the contract or leave it, just as it saw fit. The company saw fit to sign it. And look at Chicago, Pittsburgh, Kansas City, and even little Newark here across the bay! But what's the use of talking to New Yorkers? They'll stand for anything. Why, man alive, if fifty per cent. of your druggists would sweetly smile when Mr. Telephone Agent comes around with his little ten per cent. contract, and show him a twenty-five or forty per cent. one which they had had drawn up, and tell him to sign it or take his instruments out, Mr. Agent would give the first one a merry New York corporation ha-ha; but believe me, this ha-ha would gradually change to a grin of chagrin by the time he had met such a reception for the um-tumth time, and to a doleful tale of woe when he returned to headquarters to report at the end of his day's rounds. The company would make a bluff, all right, but it would come across if the druggists did not, have no

fear of that. You can't expect the company to volunteer to give the druggists two or three times what they have been getting. The company is out for the dough like all the balance of you New Yorkers, and so long as the druggist continues to give up, why should the company concern itself about his welfare? This is a case of every man for himself and the druggist will get just what he deserves, because he will deserve just what he gets. It rests with him to say whether he will accept ten per cent. commissions for working for the telephone company or demand and get twenty-five to fifty per cent., and if he and all his fellows took the right attitude, the company would seek an audience with them, hat in hand, and do the pleading; for when it comes to the public pay 'phone proposition, the company needs the druggist much more than the druggist needs the company. Put that in your pipe and smoke it."

And who shall say that the visitor from out-of-town would not be more right than wrong? The CIRCULAR has often urged the druggists of this city to stand together, to stand firm, and instead of asking picayune favors of the telephone company to issue their ultimatum to the company to the effect that equitable contracts must be signed or the telephones be taken at once from their stores. When the druggists take the position that they are doing a kindness to the telephone company by allowing it to carry on a large and profitable portion of its business which it would be unable to do without their aid, and cease asking the company for its favor, then telephone conditions of which the druggists of New York complain will right themselves, just as similar conditions have righted themselves in other cities. And until the druggists do do something of this kind they might as well try to content themselves with such commission on their telephone business as the company in its magnanimity (?) chooses to allow them. There are indications that the patience, forbearance, meekness, or whatever it is, of the New York druggists has been nearly exhausted by the telephone company. Then there is hope. Bad conditions often have to get worse before they get better.

Our Annual Index.

With this the last number of the current volume of the CIRCULAR, we present as usual an annual index. This, in the number of references it contains, is, we believe, the largest of its kind ever published. We think it impossible for anyone to glance through this index and note the large quantity and great variety of matter to which it refers, without being impressed by the immense fund of valuable information for druggists which our present volume contains. In preparing this adjunct to our year's output we have spared no pains to make it as convenient for our readers as possible, and to that end numerous cross-references are to be found throughout its text. For instance, papers are indexed under the names of their authors, as well as under the subjects of which they treat; and where the subject is such that it probably would be thought of by one reader as coming under

one head, and by another as coming under another, both heads are indexed. As an example, take the article on the adulteration of buchu by Dr. Mansfield: it is indexed under "Mansfield," under "buchu" and under "adulterations" and this system is observed throughout the work.

Those who save their copies of the CIRCULAR and bind them, will find the index most valuable. By means of our bound and indexed volume for this year we expect to be able to answer a large percentage of the queries that will reach us during the ensuing twelve months. Those who do not wish to go to the expense of having a regular book-binder do the work, may turn out a fairly good job themselves by the use of an awl, a large needle, a bit of strong twine, and a sheet of heavy paper. The binder we offer for sale is not only strong and durable, but is so made that each number of the CIRCULAR may be added to it as received without any disturbance of such other numbers as may already be in it. It thus serves to keep all the back numbers together until the volume is complete, after which it may remain on the volume permanently, or the numbers may be taken out and fitted with other covers and the binder used all over again the following year.

In any event, the CIRCULAR is far too valuable, once it has been acquired, to leave around loose to become destroyed; the present index bears testimony to this fact.

IS IT PEDANTICISM, or an aping of the physician who knows no better, or what, that causes so many druggists in writing of drugs to forsake their mother tongue occasionally and use instead thereof overcapitalized and badly crippled Latin words? There is absolutely no justification for a man who is writing in English to refer to potassium bromide as "Pot. Brom.," or to mangle "one pint of best olive oil" almost beyond recognition and offering it to the world as "Ol. Ol. Op. Oj." To do such a thing is to act in an illogical and absurd manner, and to give rude jolts to people of good taste and artistic discrimination. Besides (should the "copy" ever be "edited") it makes work for the already over-worked editor, causes trouble for the patient and conscientious printer, and if proof-readers were not, as is well-known, men of exemplary walk and conversation, it might cause them to lapse into profanity. It seems to us that these are reasons enough for the cessation of the sloppy and indefensible practice, but we hardly hope for its complete abolishment at once on the publication of this note, so we are holding in reserve a few more reasons for use the next time we have to refer to this particularly irritating kind of laches, remissness, shortcoming, laxity, negligence, slovenliness, anomaly, or whatever it is.

TEACHERS ARE FOR THE IGNORANT; those who already "know it all" have no need for their services. The man who really knows it all is either dead or not yet born. Journals are teachers, and especially is the "Notes and Queries" department of the CIRCULAR intended to be a sort of quiz room in which beginners in pharmacy as well as the old-timers may meet, ask questions of each other and of us, and offer for the edification of any who may be edified thereby such

ideas and suggestions as they may think worth while. The questions asked by novitiates and the answers given to them may not interest, much less instruct, the experienced pharmacist, but that is no reason for their exclusion; on the other hand, some of the notes given for the benefit of those who have grown expert in the laboratory, would prove worse than useless—would almost inevitably lead to disaster—in case a youngster attempted to follow the directions therein given. The man who feels that nothing which is not of direct value or interest to himself should appear in his paper should bear in mind that what's one man's poison is another's meat or drink. So let all who will, come and join in the benefits of our "Notes and Queries," remembering that the man who gives to this department is benefiting no less than he who takes from it.

WHO ARE THE MANAGERS of the large wholesale and retail establishments in the trade? Who are the successful proprietors of drug stores throughout the country? Who are the men who are getting the money out of the business? Are they the grouchy clerks of a dozen years or a generation ago? Are they the men who maintained that there was nothing in the drug business but long hours, hard work and poor pay? Or are they the fellows who "plugged" for the house that paid them their wages and instead of complaining of lack of appreciation and opportunities went ahead and did things which commanded appreciation and created the coveted opportunities? We do not pretend to answer, preferring that each reader solve these conundrums for himself. We merely suggest that they read the obituary notices of the successful men when they die, or biographical sketches of them published during their lifetime, and note how often mention is made of humble beginnings and long, long periods devoted to hard work and study—work of a kind that many young men of the present day would not deign to soil their hands with, and study under conditions which would make study impossible for any except those determined to win through sheer merit. Oh, next year seems a long way off to the young man who is laboring under a heavy burden, but ten years ago is as almost no time at all to the older man who has done his climbing and is looking back over the rocky way he has traversed. We believe in a certain amount of wholesome discontent—but for something of this kind we should still be wearing fig leaves and sleeping in caves, if we had even advanced to that stage—but for the chronic grouch who believes that he has no chance because the world is down on him—well, not to be too hard on him, we may say that he, like virtue, is his own reward.

SOON WILL THE FESTIVE ALMANAC MEN of the nostrum makers begin to flood the innocent and defenseless public with their nauseating booklets, each bearing on its back cover the printed endorsement of their truck by the retail druggist. And the pity of it is that many druggists will "fall for it," as the expressive slang phrase is. But there is some consolation in the fact that an increasing number of druggists have seen a light, and have seen that the more intelligent of their customers have seen the same light, and are no longer advertising to the public that they are partners with the nostrum people in their gentle little game of gulling the unsophisticated. The time is not yet ripe for the druggist to refuse entirely

to handle nostrums, but the time is at hand, and has been at hand for some years, when it pays druggists to let it be known that they do not endorse false statements published broadcast by the nostrum makers.

CHRISTMAS is nearly here. It seems but a short time since the year began, and the older we grow the shorter the intervals between annual events appear to us to be. Another twelve-month's work will soon come to a close. It is not our purpose here to indulge in reminiscences of the past or promises for the future, but to wish for all readers of the CIRCULAR an abundance of the good things which are usually associated with the joyous Christmas-tide, and to assure them that we want them to have and shall do what we can to help them to attain, a larger and better year's business in 1912 than they have ever enjoyed before. In short, may they all have a Merry Christmas and a Happy and Prosperous New Year.

GOOD CLERKS ARE VALUABLE in so many different ways that to undertake to enumerate them would prove a hopeless task. To mention just one of these ways: Every man, woman or child who enters the store to make a purchase or to ask a favor is likely to go out either pleased or displeased—either a friend or an enemy of the establishment—a walking advertisement for or against the place. This is true whether the person is a regular customer or a chance dropper-in. How important, then, is it that the clerk who meets the public be attentive, agreeable and winning in his attitude.

THAT ALCOHOL DELAYS PHENOL poisoning is a good thing to remember. According to the daily papers a young woman of this city who mistook a bottle of diluted solution of phenol for another remedy, owes her life to the remembrance of this fact by a quick-witted policeman. It should also be remembered that it is a good thing to empty the stomach of both the poison and the antidotes as quickly as possible.

SELLING A MORTGAGED HORSE subjects a man to criminal prosecution. Selling one article to two publishers is about the same thing.

Sea Salt de Luxe.

Luxury-loving people may prefer their sea salt perfumed. Druggists may profit by encouraging this kind of taste. Coumarin, many of the essential oils, and other perfumers' materials may be used to convert ordinary sea salt into the de luxe variety. They are best applied by dissolving first in a minimum of alcohol. One way of preparing artificial sea salt is by combining 1 pound of sodium chloride, 4 ounces of magnesium chloride, and 1 ounce each of potassium chloride and calcium sulphate.

Preventing the Hardening of Pills.

Pills, very frequently, have a tendency to become so hard as to remain undissolved both in the stomach and in the intestines and to pass the system without having exerted any therapeutic action. To prevent this hardening, Otto (*Münch. med. Woch.*) recommends adding 5 grammes of manna to 100 grammes of pill mass and moistening the mass with tincture of gentian. Pills prepared in such a manner are said to retain their soft consistence indefinitely.

Christmas in the Country Drug Store.

BY W. H. ROWE.

Quaint old Thomas Tusser, an English poet, who wrote the Farmer's Daily Diet away back in the middle of the sixteenth century advises:

At Christmas, play and make good cheer,
For Christmas comes but once a year.

Were I writing a calendar for country druggists, I could find no better advice for the month of December than to change but one word of the practical Tusser and make it read:

At Christmas, work and make good cheer,
For Christmas comes but once a year.

Christmas is one of the great opportunities of the country druggist. Then, if at no other time of the year, he has the advantage of his city brother. Away from the competition of the big department store proprietors who regard December as their harvest time, with more room at his disposal for the storage and display of an increased stock, and supplying the wants of those whose eyes have not been dazzled by the magnificence of the holiday attire of the big cities, if he cannot make his December sales average at least forty per cent. more than those of any other month of the year, there is something wrong with the country druggist, and the day of the twenty-sixth should be one of strict examination of his methods of buying, advertising, displaying, and selling the goods.

BUYING GOODS

Preparation for the holiday season should begin very early. The problem of judicious buying is perhaps greater in this line of goods than in any other. Fads and fancies change from year to year and last season's stock, if held over to this, is as disastrous to the attractiveness of one's display as would be a few withered apples on the top of a barrel of rosy "spies." Before one even attempts to buy, it will be time exceedingly well spent if he thinks over carefully the tastes and habits of those whose patronage he is soliciting and tries to put himself in their place when selecting the goods. If it is not his first year, he may glance back and note what sort of articles has seemed most attractive to them in the past and the prices they were willing to pay. To aid me in planning my buying, I sometimes take a catalogue of one of the mail-order houses and go through its pages devoted to holiday goods, not to order, but that I may get an idea of what will be offered to me when I go to my own jobber to buy. Personally, I find that I can make up my mind more clearly and justly as to the merits of a certain article as I sit quietly and see it described in print than I can when a clever and talkative salesman is descanting upon it to me.

One point in the buying of the country druggist should be made emphatic—he should aim at securing a variety rather than a quantity of any one class of goods. For this reason buying from the jobber rather than from the larger importing or manufacturing house, is more economical for the small dealer. He may buy twelfths of dozens of the jobber, while the large house will require him to take packages of not less than half dozens or dozens. Such things as candies and stationery may, perhaps, be bought to advantage direct from manufacturers, but the little articles that are needed to suit everybody's purse and taste must be gathered in small amounts.

Let not the country druggist despise the things of little price. Expensive toilet sets and jewel boxes

may be the thing for the city merchant who caters to the smart set, but the dime, "quarter," fifty-cent and dollar articles will make a happier day-after-Christmas for the druggist who must look to buyers of the working class. And as the country druggist selects, let him try to put aside his personal tastes in some things and buy for eyes that have not, perhaps, been so cultivated as his own. For example, he would not choose for his wife that elaborately filagreeed jewel box with gorgeous purple satin lining, yet Jim will think it exactly the thing for his Mame. If the druggist's tastes are for subdued colorings and plainness of designs, let him forget it on principle while buying, and select some things that are even repulsive to him because of their brilliance and cheap workmanship. Another bit of advice I have to offer to country druggists preparing for Christmas trade, is to buy early—as soon as the jobber has notified him that his stock is complete. Thus he will get the advantage of first pick of the season's offerings. A great many of the holiday goods are brought from abroad by importers who order only once a year, so in buying them it is a case of first come, first served. If the druggist has plenty of storage room he might have the goods shipped early and the bill dated as of December. Then in the duller days of November he may unpack and mark the articles at his leisure and thus escape the rush that attends the first of the holiday season.

MAKING CHRISTMAS DISPLAYS.

The tendency during the last ten years has been increasingly toward a longer season. The longer season is better for the business man, better for his helpers, and better for the buying public. The first week in December is none too early for a holiday display to be made, and many of the larger stores put theirs out immediately after Thanksgiving Day. Old business men will sometimes say that there will be only lookers during the first two weeks; that the buying is all done during the last ten days, but my cash book for the first twenty-four days of the last eight Decembers does not bear out the truth of this statement. If a merchant lets the people know that he has what they wish early enough, they are not so apt to go away to the city during the rush of Christmas week for things which they know they can find there but are not quite certain they can buy at home.

In displaying the goods, it is well to make the store as festive as possible. With the numerous decorations and festoons now made of crape paper, the holiday effect is easily achieved, and that, too, at a small expense. Some thought should be expended on the stock before it is put on display. With pencil and paper the druggist might make a design of his store and by its aid study out the proper place to show each class of goods. If he has put in a few toys, they should be on a low table where the children may easily see them without using their hands. He should use a little strategy and arrange his Christmas post cards and booklets—articles that every one is certain to want to see—well toward the back of the store so that everything else in the display must come under the eye of the one who seeks these. The higher-priced candies and fine perfumes need not appear in the most prominent place until the last week before Christmas, for these things are almost altogether bought by the men, and they are inclined to put off the "evil day" as long as possible.

Above all things at Christmas time, let the price be plainly and conspicuously shown on each article. People are sensitive about the amount of money they can afford to give for a gift and will often go away without asking the price of something that attracts them for fear it may cost more than they are able to pay. Customers should not be followed about too closely and urged to buy. The clerk must, of course, be at hand if needed, and on the alert if he can be of help, but the results will be better if people are allowed to take their own time about buying, consult with their companions, and exercise the privilege of free-will in their choice.

HOLIDAY ADVERTISING SCHEMES.

The subject of Christmas advertising is almost unlimited. There are a thousand and one ways by which it can be made effective—a thousand and one schemes that bring results. The only thing necessary is for each to choose the one that seems to fit his need best and “work it for all it is worth.” Voting contests in which the school children receive tickets to distribute among their friends, who, by purchasing a given amount, may cast a certain number of votes for the child and thus help him win a prize, have been very effective, especially if the Christmas line is a new enterprise.

Druggists who distribute calendars may in the early part of December have a “Calendar Week.” That is, when the holiday goods have been suitably displayed, the druggist may send neat announcements about the town to say that during the week he will make his annual distribution of calendars and the public may get them by coming to the store for them. It is well for the druggist to hint on these announcements that his Christmas stock is ready, and offer a small bonus of, perhaps, a half-dozen Christmas post cards to each one who during the next two weeks makes purchases amounting to a certain figure. An advantage of this plan is that it encourages early buying. Some years the announcement may take the form of a small booklet in which the druggist has an opportunity to set forth the separate items of his stock that would appeal to different members of the family. The man who thinks it “so hard to buy anything for a woman,” and the woman who “can’t ever think of anything a man wants,” seeing this list of things a dealer keeps that would make the sweetheart or swain happy, naturally goes to the place mentioned in the list for it. Such classified lists printed in large letters and hung up about the store are sometimes of great help as suggestions.

WINDOW TRIMMING.

There is no excuse for one who does not have attractive window displays at this season, when there are so many beautiful things at hand with which they may be made. It is a good plan for the merchant to arrange before the opening of the season some suitable background, as elaborate as he may please, and use this as an attraction around which the goods may be often changed. Moving displays are always strong drawing cards and can easily be arranged for at little expense. So simple a thing as an old-fashioned open fire-place with the bulging stockings hung at the mantle edge did great service for me one year, and has been borrowed two successive seasons by a store in a neighboring village. The Christmas tree in the window is, perhaps, the conventional thing, but unless the window is wide and

well lighted it will not be satisfactory. Once in a while there should be arranged a window display containing gifts for the separate members of the family—for the baby, for the father, for the older sister, and so on. Then there might be arranged groups showing what pretty remembrances may be bought for ten cents or for twenty-five cents. Of course the trim should be kept shining bright and full of the suggestions of the holiday spirit.

LITTLE HELPS, BIG RESULTS.

“Being accommodating” pays at this time as well as any other time of the year. It may seem hard for the druggist to bother with some things when he is so busy, but the time is well spent that is devoted to giving attention to the seemingly trivial needs or unreasonable demands of customers. The druggist might offer to pack goods that are to be sent to a distance; furnish pen, ink and stamps for those who wish to send their gifts away at once; let it be known that packages for the post-office left with him will be promptly and safely mailed; arrange with the expressman to call for outgoing express matter—and advertise that fact; furnish blank cards for those who wish to send their name along with the gift. If he does not have in stock what is wanted, he might order it, even at some inconvenience and expense. Especial care should be taken in doing up and tying packages. Tissue paper should be freely used on the small and dainty things. A spool of white or “hollyed” baby ribbon should be at hand for use on the higher priced articles, and seals or gift dressings of the druggists’ own could be used to better the appearance of holiday packages. Some enterprising dealers obtain a supply of labels bearing the words “Fragile,” “Do Not Crush,” “Not to be Opened Until Christmas,” etc., and use them when desired. Such little favors abundantly pay for themselves and their influence is felt the whole year ’round.

AFTER IT IS ALL OVER.

That the handling of holiday trade in a country drug store is trying, tiring and nerve racking is admitted. The proprietor will probably be so exhausted before the season is over that he will not want to think of buying gifts himself, will not want to play Santa Claus, and will be heartily glad that “Christmas comes but once a year,” but the tinkle of the dollar in his cash register and the fullness of the bill fold in his breast pocket will do much to sooth these feelings and make him half wish that every day in the year was the Saturday before Christmas.

Clean Streets and Tuberculosis.

Stone (*Bost. Med. and Surg. Journ.*) argues that there are at least three conditions of street management for which those interested in the campaign against tuberculosis should strive. (1) The smooth-paving and regular cleaning of all streets, not by dry sweeping, but by flushing, or, if this is not possible, by sprinkling before sweeping. Exactly what can be done in winter, when flushing or sprinkling is not feasible, is a problem not yet fully worked out. (2) A minimum height of buildings and a maximum width of streets wherever possible, in order that those unequaled germ-destroyers, the sun’s rays and fresh air, may have a chance to do their excellent work. (3) The immediate removal of all rubbish and garbage with the consequent lessening of danger from flies.

Elixir of Iron, Quinine and Strychnine Phosphates.

BY RICHARD J. FRITZINGER, M. D.

One need not emphasize a fact of which every tyro of a druggist is conscious, viz., that there is much difficulty and tediousness connected with the production of filtrate of aromatic elixir.

But these two hindrances of the operation are not the most serious problems in the filtration of this elixir. Another, and a greater one (but hinging on them) involves the loss of alcohol that results when the operation is carried on under ordinary conditions in the average laboratory. The laboratory is commonly an appendage of the store and is kept at the store's temperature; and, in fact, in many smaller pharmacies the filtration is conducted in the prescription department itself—possibly, at times, without the required precaution in the matter of a well-covered funnel. The relation of these statements to the formula are apparent when the additional explanation is made that the turbid, unfiltered aromatic elixir is preferable to the filtered one in the manufacture of the elixir of iron, quinine and strychnine phosphates, since it filters much more easily and quickly when in this combination than when mixed for filtration as aromatic elixir.

The method of procedure is simply to follow the process of the Pharmacopœia, with the exception of using the unfiltered instead of the filtered aromatic elixir, and permitting the mixed product to stand over night, or for a longer period. Nor does the advantage of this method lie solely in the saving of alcohol by virtue of the more rapid filtration. No talcum is required as a clarifying agent; and, obviously, there will be a higher percentage of alcoholic strength in the finished product. The additional alcohol in the elixir exerts its solvent power upon the oils in the aromatic ingredients, thus aiding in the clarifying process and enabling a larger proportion of the oils to be held in solution.

In following the official directions several precautions are essential to the production of a fine elixir—such as is due to this excellent formula.

Failures result from over-heating the solution of the iron salt. This salt should be dissolved in hot water, or by the aid of the heat of the water-bath—never over the open flame. A second source of error in manipulation arises in carrying the neutralization process too far, so that instead of exact neutrality, alkalinity results. There is no valid objection, either pharmaceutic or therapeutic, to a slight acidity of the solution, and, so far as I am concerned the only liberty that is taken with the official directions is that neither the solution of iron nor that of the ammonium acetate is neutralized. One of our best manufacturers failed at this point, and a bottle of the product in my collection adorns the tale.

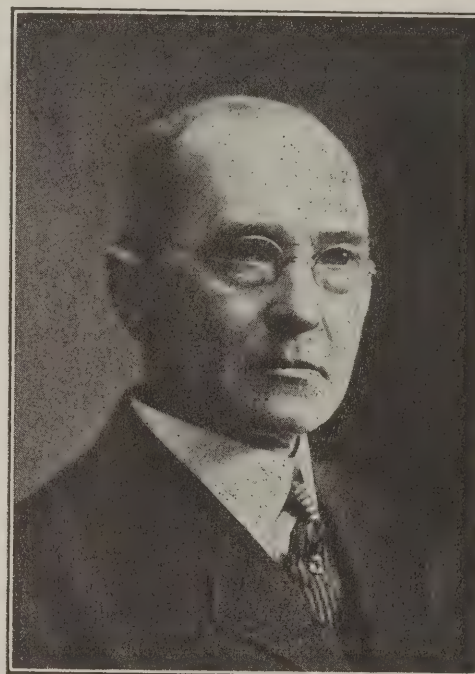
The directions in regard to the phosphoric acid should be carefully noted: Mix the acid with the exact amount of elixir stated.

It is evident from the inquiries and comments still made in regard to this formula that the last word has not yet been said; and these suggestions are made with the hope that they may be of use to those who prepare this elixir in larger quantities, and that they may also possibly remove some of the difficulties of others who seem to have trouble with the manipulations of this formula.

The Lloyd Library Botanical Park and Arboretum.*

BY PROF. JOHN URI LLOYD.

At the beginning of the nineteenth century all the territory lying between the Ohio River and Lexington, Ky., was yet in a primitive condition and consisted of a great natural woodland, dotted here and there with clearings where settlers were commencing their homestead efforts. Beginning at the Ohio



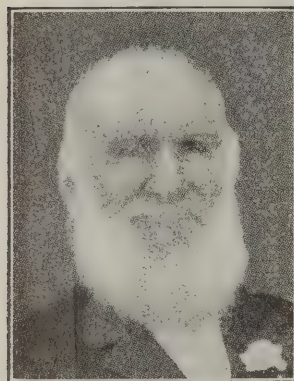
Very Sincerely Yours
John Uri Lloyd

Cincinnati September 18th 1911

River, back of Covington, and stretching southward toward Georgetown and Lexington, a high ridge or water shed extends in nearly a direct line, sloping on the western side into the Kentucky River, and on the eastern side into the Licking River. In the earlier days Daniel Boone and Simon Kenton, for obvious reasons, selected the respective river valleys as exploring pathways. When Cincinnati was laid out, as a "village opposite the mouth of the Licking," John Filson, a renowned civil engineer of Lexington, Ky., who had been previously selected by George Washington to map Kentucky as it was then known, and whose work is recorded in the now rare volume, Filson's History of Kentucky, was employed by John Cleves Symmes to lay out a new settlement which, as stated above, was to be located "opposite the mouth of the Licking River." John Filson, in 1785, deviating from past trails, surveyed a new road, following the Indian trail that meandered along the top of the

* Read at the 1911 meeting of the American Pharmaceutical Association.

ridge aforementioned, and blazed his way to the site of the prospective village, which he surveyed and named Losantiville. Filson's name for the little settlement in the wilderness was, however, brushed summarily out of existence by Gen. St. Clair, who gave it the more pretentious name of Cincinnati, in honor of the Order of Cincinnatus, then in the climax of its aristocratic glory. The village, as marked out by Filson, extended from what is now Broadway, which he named Eastern row, to Central avenue, then Western row.* The plot of ground between these limits, orig-



THOMAS ROUSE. REV. THOMAS HENDERSON.

inally selected by John Filson, still remains the most thickly settled portion, constituting now the business section of Cincinnati, the original survey into streets still standing, practically intact. But while reaping the fruits of John Filson's labor, Cincinnati has not as yet found the opportunity of appropriately honoring the name of the man who laid out the city in the Western wilds, and who, after the work was consummated, making an excursion one Sunday morning into the outskirts, then infested by hostile Indians, silently disappeared, never to return. Indeed, the one street that originally bore the name of Filson was rechristened, the stately name Filson avenue being replaced by the insignificant title, Plum street. But while to-day not a park, not a street, not a tablet, even, in this great city bears the name of the man to whose wise foresight we are indebted for Cincinnati's very location, it is hopefully expected that civic pride in Cincinnati will soon make appropriate recognition of the name of the exploring engineer, John Filson.†

Where John Filson blazed his way, following the Indian trail from Lexington to Cincinnati, came next a horse path, then a mud road, which became, in 1845, a "turnpike road." On this same ridge finally was located the Cincinnati Southern Railway, known now as the Queen and Crescent. On the very crest of this ridge, bisected by these great arteries of travel, twenty-five miles south of the Ohio River, lies a tract of land having the following history:

In the beginning of the nineteenth century Rev. Thomas Henderson, a progressive educator, a Bap-

tist minister of the most pronounced type, crossed the Allegheny Mountains, through Cumberland Gap, to Kentucky. In his capacity he served as preacher, educator, explorer, and philanthropist, being for many years superintendent of the Indian educational system of Kentucky. Under his direction the now long forgotten National Indian School near Georgetown, Ky. (now Great Crossing), was instituted and conducted. The stormy incidents of his career are depicted in the voluminous correspondence between himself and Colonel Richard M. Johnson, famous as the reputed slayer of the Indian warrior, Tecumseh.*

In 1815 a log cabin was built by a settler named Robinson on the selected land that crested the ridge traversed by the Filson path, known now as the Lexington pike.† This cabin, with the land pertaining thereto, was purchased by the aforementioned Rev. Thomas Henderson, who enlarged it to nearly double its former size, in whose possession it remained until his death, in 1846. His estate was then divided among his children, but the portions assigned to the other heirs were severally purchased by Thomas Rouse, who brought the property back into one great block, which thus remained in the possession of the original Henderson family, through the wife of Thomas Rouse, who was Miss Nancy Henderson, daughter of Rev. Thomas Henderson. However, before the death of Thomas Rouse, sixty acres of this land had been deeded to his daughter, Emma Rouse, wife of John Uri Lloyd, and to this portion Mr. Lloyd had added, by purchase from Mr. Rouse, an adjoining tract of forty acres. After the death of Mr. Rouse (1906), and his wife, Nancy Henderson Rouse (1908), Mr. Curtis Gates Lloyd, the principal donor of the Lloyd Library, who had grown up almost as one of the Rouse children, being perfectly familiar with this magnificent tract of land, which had been most carefully cared for since the date of its transfer from the government, conceived the idea of making of it a botanical park and arboretum, as a part of the Lloyd Library equipment. Uniting with him, Mr. and Mrs. John Uri Lloyd donated their portions of the old homestead (including a beautiful natural woodland untouched by the axe), while Mr. Curtis Gates Lloyd purchased the interests of the other heirs (which carried another primitive woodland adjoining), excepting that of Mr. Henderson Rouse, who yet owns his inheritance. He lives in the old home, a part of which yet consists of the original log cabin (now weather-boarded) built a hundred years ago by Robinson in the little clearing of the wilderness of northern Kentucky.

This homestead was a famous road house in the early days of Kentucky, situated as it was on the only direct line north from Lexington, then the center of Western culture and science and refinement. The double log house had been weather-boarded by Mr. Henderson, the interior wainscoted and furnished in extra style, even to a piano (a mark of great distinction), brought in a wagon over the mountains from Baltimore, as were the "boughten" carpets that covered its floors. Here all weary travelers were wel-

* In addition, surveyor. Many early surveys in Cincinnati bears his name as surveyor.—J. U. L.

† In my folklore study of northern Kentucky, known as Stringtown on the Pike, this pike is called "the Stringtown pike," the village of Florence, nine miles south of Covington, being "Stringtown."—J. U. L.

* The labels of the drug store in which I was apprenticed, winter of 1863-4, W. J. M. Gordon & Brothers, bore the name, Eighth street and Western row.—J. U. L.

† Louisville has its celebrated Filson Club; very properly, too, for Filson resided long in Kentucky. See my "John Filson the Neglected," contributed February, 1903, to the Literary Club of Cincinnati.—J. U. L.

comed and here also all the celebrities of those early days were entertained, General LaFayette being there in a guest of honor during his Western journey. In this home every personage conspicuous in Kentucky's early fame has rested and dined, and here, it is to be hoped, the eyes of the scientific future will as pleasantly turn as we now look upon the hospitality of its past record.

To Mr. Curtis Gates Lloyd is thus due the credit for the inception of the plan of this new botanical park and arboretum, as well as the larger share of its



CURTIS GATES LLOYD.

donation. He has also assumed its care and financial responsibility, in the direction of its subsequent evolution, in which its donors hope it will in the future finally become worthily established.

The Lloyd Library, Botanical Park and Arboretum, lying twenty-five miles south of Covington, Ky., at the doors of the famous blue grass region of the State, now carries two natural woodlands, set with the

native herbs, shrubs, trees, and other growth, undisturbed from the date of the opening of Kentucky, together with a large part of several hundred acres of land that for quality has no superior in all northern Kentucky. Mr. Curtis Gates Lloyd, with his well-known energy and persistence, will unquestionably see to it that this tract, with its broad fields and beautiful slopes, shall as time passes develop into a possession conforming to the ideals of its donors. Resting on the crown of the water-shed between the Kentucky and the Licking Rivers, it is now intersected by both the Cincinnati Southern Railway and the famous Lexington pike, a traction line to Cincinnati being also in process of construction. In the deed of donation every effort has been made to preserve to the future the integrity of the included woodlands, which, strangely enough, in this country of forest destruction, have been preserved intact from the days of the Indian.

Lysol Poisonings.

The *Chemist and Druggist* (London) reports that at the September meeting of the Victoria (Australia) Board of Pharmacy a letter was read from the New South Wales board stating that it was reported that ninety-six persons had died from lysol poisoning and asking to be supplied with further details. Letters had been received from the importers of lysol stating that they are willing to restrict the sale to the original package in which lysol is imported. This met with the approval of the board. The chief secretary and the public health department, who had been consulted, thought the offer should be accepted, as it would have the effect of further restricting the indiscriminate sale of lysol in small quantities.

Witchhazel Rose Glycerin.

Mix equal parts of glycerin and rose water and to the mixture add an equal volume of witchhazel water.

Proposed National Formulary Formulas.

Continuing his efforts as a member of the committee revising the National Formulary (see the CIRCULAR for last month, page 651) M. I. Wilbert has sent out for discussion another installment of formulas proposed for admission into that book. These are presented herewith, edited to make them uniform in appearance with other matter of a like nature, printed in the CIRCULAR. We join Mr. Wilbert and the committee in inviting comments on and criticisms of the formulas.

The following are some of the new formulas that have been suggested for inclusion in the forthcoming edition of the National Formulary. The committee is desirous of having them thoroughly tried by pharmacists in different sections of the country so as to avoid as much as possible, unfavorable comment after the final publication of the book. Comments and criticisms based on practical experiences will be welcome. All communications should be addressed to the chairman of the committee, Prof. G. Lewis Diehl, 932 Cherokee road, Louisville, Ky., who will submit the comments to the sub-committee having the matter in charge:

Liquor Sodii Chloridi Physiologica.

Physiological Sodium Chloride Solution.

Normal Saline Solution. Isotonic Salt Solution.

Sodium chloride..... 8 grammes.

Water (recently boiled and preserved

in a sterile container) enough to make 1000 c.c. (mils).

Dissolve the sodium chloride in the water, filter and again sterilize by exposure to heat.

Aqua Phenolata.

Phenolated Water. Carbolic Acid Water.

Liquefied phenol..... 20 c.c. (mils).

Distilled water..... 980 c.c. (mils).

Mix.

Liquor Pepsini Antisepticus.

Antiseptic Solution of Pepsin. Physol.

Pepsin 50.0 grammes.

Menthol 0.5 gramme.

Eucalyptol 0.5 c.c. (mil).

Oil of betula..... 0.5 c.c. (mil).

Alcohol 10.0 c.c. (mils).

Glycerin 50.0 c.c. (mils).

Diluted hydrochloric acid..... 20.0 c.c. (mils).

Purified talc..... 50.0 grammes.

Distilled water..... enough to make 1000.0 c.c. (mils).

Dissolve the pepsin in 800 c.c. (mils) of distilled water, add the diluted hydrochloric acid and glycerin. Then dissolve the menthol, eucalyptol and oil of betula in the alcohol; mix this liquid with the pepsin solution, and add sufficient distilled water to make the product measure 1000 c.c. (mils). Finally, mix the purified talc with the solution, and filter, returning the first portion of the filtrate until the liquid is clear.

Liquor Picis Carbonis.

Liquor Carbonis Detergens. Coal Tar Solution.

Coal tar..... 200 grammes.

Quillaja in No. 20 powder..... 100 grammes.

Alcohol..... enough to make 1000 c.c. (mils).

Mix the coal tar and quillaja with 700 c.c. (mils) of alcohol and macerate during seven days in a closed vessel with occasional agitation. Then filter and wash the contents of the filter with a sufficient quantity of alcohol to make the product measure 1000 c.c. (mils).

Extractum Cinchonae Liquidum.

Liquid Extract of Cinchona.

Red cinchona in No. 40 powder..... 1000 grammes.

Hydrochloric acid..... 30 c.c. (mils).

Glycerin 125 c.c. (mils).

Alcohol 130 c.c. (mils).

Water..... enough to make 1000 c.c. (mils).

Mix the hydrochloric acid and glycerin with 1000 c.c. (mils) of water and moisten the powder with 350 c.c. (mils) of the mixture. Pack the moistened drug in a cylindrical percolator, pour on additional menstruum, and when the liquid begins to drop from the percolator, close the lower orifice, and, having closely covered the percola-

tor, macerate for forty-eight hours. Then allow the percolation to proceed slowly until the cinchona is exhausted, using the remainder of the menstruum and then a sufficient quantity of the water. Reserve the first 700 c.c. of the percolate, and evaporate the remainder to 400 c.c. (mils) at a temperature not exceeding 80° C., then add the reserved portion and continue the evaporation until the mixed liquid measures 800 c.c. (mils). Finally add the alcohol and enough water to make the finished product measure 1000 c.c. (mils).

Oleum Ricini Aromaticum.

Aromatic Castor Oil.

Saccharin	0.5 gramme.
Oil of cinnamon.....	1.5 gramme.
Vanillin	1 gramme.
Cumarin	0.1 gramme.
Alcohol	40 c.c. (mils).
Castor oil.....	enough to make 1000 c.c. (mils).

Dissolve the oil of cinnamon, saccharin, vanillin and cumarin in the alcohol, add the castor oil, and mix thoroughly.

Pilulæ Digitalis, Scillæ et Hydrargyri.

Pills of Digitalis, Squill and Mercury.

Niemeyer's Pills for Dropsy.

Guy's Pills.

Digitalis, in fine powder.....	6.5 grammes.
Squill, in fine powder.....	6.5 grammes.
Mass of mercury.....	6.5 grammes.
Clarified honey.....	enough.

Thoroughly mix the digitalis and squill, add the mass of mercury, and make into a mass by the addition of clarified honey. Divide this into 100 pills.

Pilulæ Opii, Digitalis et Quinina.

Pills of Opium, Digitalis and Quinine.

Niemeyer's Pills for Phthisis.

Powdered opium.....	1.0 gramme.
Digitalis, in fine powder.....	6.5 grammes.
Quinine sulphate.....	6.5 grammes.
Clarified honey.....	enough.

Mix the ingredients thoroughly and make into a mass by the addition of enough clarified honey. Divide this into 100 pills.

Syrupus Papaveris.

Syrup of Poppy Capsules.

Poppy capsules (deprived of seed) in

No. 20 powder.....	850 grammes.
Sugar	850 grammes.
Distilled water.....	enough to make 1000 c.c. (mils).

Loosely pack the ground poppy capsules in a suitable percolator and gradually pour boiling distilled water until the drug is exhausted. Heat the percolate to boiling for two minutes; then concentrate on the water bath to 500 c.c. (mils), in which dissolve the sugar. Add enough distilled water to obtain 1000 c.c. (mils) of product. Strain while warm and bottle at once. Syrup of poppy capsules should be kept in small vials completely filled and stored in a cool place.

Syrupus Ammonii Hypophosphitis.

Syrup of Ammonium Hypophosphite.

Ammonium hypophosphite.....	32.5 grammes.
Diluted hypophosphorous acid.....	2.0 c.c. (mils).
Distilled water.....	100.0 c.c. (mils).
Glycerin	100.0 c.c. (mils).
Compound spirit of vanillin.....	2.0 c.c. (mils).
Syrup.....	enough to make 1000.0 c.c. (mils).

Dissolve the ammonium hypophosphite in the distilled water; add the diluted hypophosphorous acid, and filter. Then add the glycerin, compound spirit of vanillin, and enough syrup to make the product measure 1000 c.c. (mils).

Tinctura Opii Crocata.

Tincture of Opium with Saffron. Sydenham's Laudanum.

Granulated opium.....	100 grammes.
Saffron, in No. 20 powder.....	25 grammes.
Saigon cinnamon, in No. 60 powder..	6 grammes.
Cloves, in No. 30 powder.....	6 grammes.
Clean sand.....	enough.
Diluted alcohol.....	enough to make 1000 c.c. (mils).

Triturate the drugs in a mortar with an equal bulk of clean sand; then rub them to a smooth paste with a portion of the diluted alcohol, and transfer the mixture to a tightly-stoppered percolator in which has been placed a plug of purified cotton. Rinse the mortar with a portion of the diluted alcohol and transfer the washings to the

percolator. Add enough of the menstruum to leave a stratum of liquid above the drugs; cover the percolator and allow the mixture to macerate for two days; then percolate until 1000 c.c. (mils) of tincture is obtained.

Tinctura Cacti Grandiflori.

Tincture of Cactus Grandiflorus.

Tincture of Night Blooming Cereus.

Cactus grandiflorus.....	500 grammes.
Alcohol.....	enough to make 1000 c.c. (mils).

Cut the cactus grandiflorus and crush it in a mortar; then add 700 c.c. (mils) of alcohol, and transfer the mixture to a closed vessel and macerate for several days with occasional agitation. Express the drug, measure the expressed liquid, and set it aside in a closed container. Pack the drugs firmly in a percolator and slowly percolate with alcohol until enough percolate is obtained to measure, when added to the reserved expressed liquid, 1000 c.c. (mils) of tincture. Finally filter the tincture and store it in well-stoppered bottles, in a cool place.

Tinctura Cocculi Indici.

Tincture of Cocculus Indicus.

Tincture of Fish Berry.

Cocculus indicus, in No. 30 powder.... 100 grammes.

Diluted alcohol.....enough to make 1000 c.c. (mils).

Moisten the ground cocculus indicus thoroughly with diluted alcohol; pack it firmly in a cylindrical percolator, and pour on enough of the menstruum to saturate the drug and leave a stratum of liquid above it. When the liquid begins to drop from the percolator, close the lower orifice, cover the percolator, and macerate for six hours. Then allow the percolation to proceed slowly, adding diluted alcohol from time to time until 1000 c.c. of tincture is obtained.

The use is almost entirely for external application to destroy vermin.

Tinctura Delphinii.

Tincture of Larkspur.

Larkspur seed, in No. 30 powder.... 100 grammes.

Alcohol.....enough to make 1000 c.c. (mils).

Moisten the powdered larkspur seed with enough of the alcohol, and pack it firmly in a cylindrical percolator; pour on enough alcohol to saturate the drug and leave a stratum of liquid above it. When the liquid begins to drop from the percolator, close the lower orifice, cover the percolator and macerate for six hours. Then allow the percolation to proceed slowly until 1000 c.c. (mils) of tincture is obtained.

Rarely used internally, but is commonly employed externally to destroy parasites.

Tinctura Passifloræ.

Tincture of Passion Flower.

Passion flower, in No. 20 powder.... 200 grammes.

Diluted alcohol.....enough to make 1000 c.c. (mils).

Moisten the passion flower with diluted alcohol; pack it evenly and firmly in a conical percolator, and pour on enough of the menstruum to saturate the drug and leave a stratum of liquid above it. When the liquid begins to drop from the percolator, close the lower orifice of the percolator and macerate for six hours. Then allow the percolation to proceed slowly, pouring on diluted alcohol from time to time, until 1000 c.c. (mils) of tincture is obtained.

Tinctura Pulsatilla.

Tincture of Pulsatilla.

Pulsatilla, in No. 30 powder..... 100 grammes.

Alcohol,

Water.....of each, enough to make 1000 grammes.*

Mix 750 c.c. (mils) of alcohol with 250 c.c. (mils) of water and moisten the pulsatilla with enough of this mixture; pack firmly and evenly in a conical percolator, and pour on enough of the menstruum to saturate the drug and leave a stratum of liquid above it. When the liquid begins to drop from the percolator, close the lower orifice, cover the percolator and macerate for six hours. Then allow the percolation to proceed slowly, pouring on the menstruum of alcohol three volumes, water one volume, until 1000 c.c. of tincture is obtained.

*Of course this is not meant. Enough of each to make 1000 grammes means enough alcohol to make 1000 grammes, and enough water to make 1000 grammes.—Editor THE DRUGGISTS CIRCULAR.

Tinctura Sabalis et Santali.

Tincture of Saw Palmetto and Santal.

Sabal, granulated or crushed in No. 16 powder..... 200 grammes.
 White sandalwood, in No. 60 powder. 65 grammes.
 Alcohol
 Water.....of each, enough to make 1000 grammes.*

Mix the sabal and sandalwood and moisten the mixed drugs with enough of a menstruum composed of alcohol four volumes, water one volume, and then pack firmly and evenly in a cylindrical percolator. Pour on enough of the menstruum to saturate the drugs and leave a stratum of liquid above them. When the liquid begins to drop from the percolator close the lower orifice, cover the percolator and macerate for two days. Then allow the percolation to proceed, slowly, pouring on more of the same menstruum from time to time until 1000 c.c. (mils) of tincture is obtained.

Red Cross Seals.

Dr. Farrand, executive Secretary of the National Association for the Study and Prevention of Tuberculosis, denies positively statements to the effect that Red Cross seals could no longer be used on postal matter. They will be issued again this year. On July 1st, he says, the post office department decided that it could no longer carry mail matter "bearing stamps or seals which resembled postage stamps"; but the design chosen for this year's seal does not come within the prohibition, having been definitely approved by the post master general. Every effort has been made, says the secretary, to get as far away from the conventional design of stamps and seals as possible. The new seal will depict a very pretty winter scene. The corners of the seal, which will be square, are in white, thus giving the effect of a circular seal when it is affixed to letters and packages. It is very important that every one bear in mind that the post office department will not carry any mail matter bearing these seals or any other non-postage stamps upon the address side. Seals, if used, should be placed on the back of letters and packages. This will be the third year that the seals have been sold on a national basis. In 1908 over \$135,000 was realized from the sale; in 1909, nearly \$225,000; and in 1910 nearly \$310,000. New York State led the sale last year with 5,955,872 seals, Ohio coming next with 3,743,427, and Wisconsin third with 2,770,112. In addition to these, Pennsylvania, New Jersey, Massachusetts, Connecticut, California, and Rhode Island sold over a million each. Nashville, Tenn., selling 200,000, was the only city receiving over 100,000 seals which sold every one of them.

Use of Hyperol in Analysis.

Hyperol is the name of a compound prepared according to Tanatar from hydrogen dioxide and urea. It contains about 34 per cent. of the former, 65 per cent. of the latter and small quantities of citric acid which is added as a preservative. Milbauer (*Chem. Zeit.*) has found that hyperol can be applied whenever hydrogen dioxide is used in analytical work; chromic salts are converted by it into chromates, sulphides into sulphates, ferrous salts into ferric salts. It may also be used in Jannasch's method of separating metallic salts quantitatively. Hyperol, which occurs as a fine crystalline powder, is marketed as such or in the form of tablets, each of the latter containing 1 gramme of the reagent.

* See foot-note on the opposite page.

International Atomic Weights, 1912.

The International Committee on Atomic Weights reports that a number of important determinations of atomic weights have been published since its report for 1911 was made. A summary of these is given. Gray and Ramsay have determined the density of the gaseous emanation from radium to which they have given the name niton. This gas, says the report, is a member of the argon group and seems to be entitled to recognition in the table.

The table of atomic weights for 1912 follows. In accordance with a suggestion received from Germany the changed values are indicated by an asterisk. It is pointed out that the changes are few, and only in two cases large:

Symbol.	Atomic Weight	Symbol.	Atomic Weight
Aluminum Al	27.1	Neodymium Nd	144.3
Antimony Sb	120.2	Neon Ne	20.2
Argon A	39.88	Nickel Ni	58.68
Arsenic As	74.96	*Niton (radium emanation) Nt	222.4
Barium Ba	137.37	Nitrogen N	14.01
Bismuth Bi	208.0	Osmium Os	190.9
Boron B	11.0	Oxygen O	16.0
Bromine Br	79.92	Palladium Pd	106.7
Cadmium Cd	112.40	Phosphorus P	31.04
Caesium Cs	132.81	Platinum Pt	195.2
*Calcium Ca	40.07	Potassium K	39.1
Carbon C	12.00	Praseodymium ...Pr	140.6
Cerium Ce	140.25	Radium Ra	226.4
Chlorine Cl	35.46	Rhodium Rh	102.9
Chromium Cr	52.0	Rubidium Rb	85.45
Cobalt Co	58.97	Ruthenium Ru	101.7
Columbium ...Cb	93.5	Samarium Sa	150.4
Copper Cu	63.57	Scandium Sc	44.1
Dysprosium ...Dy	162.5	Selenium Se	79.2
*Erbium Er	167.7	Silicon Si	28.3
Europium Eu	152.0	Silver Ag	107.88
Fluorine F	19.0	Sodium Na	23.0
Gadolinium ...Gd	157.3	Strontium Sr	87.63
Gallium Ga	69.9	Sulphur S	32.07
Germanium ...Ge	72.5	*Tantalum Ta	181.5
Glucinum Gl	9.1	Tellurium Te	127.5
Gold Au	197.2	Terbium Tb	159.2
Helium He	3.99	Thallium Tl	204.0
Hydrogen H	1.008	Thorium Th	232.4
Indium In	114.8	Thulium Tm	168.5
Iodine I	126.92	Tin Sn	119.0
Iridium Ir	193.1	Titanium Ti	48.1
*Iron Fe	55.84	Tungsten W	184.0
Krypton Kr	82.92	Uranium U	238.5
Lanthanum ...La	139.0	*Vanadium V	51.0
Lead Pb	207.1	Xenon Xe	130.2
Lithium Li	6.94	Ytterbium (Neoytterbium) Yb	172.0
Lutecium Lu	174.0	Yttrium Yt	89.0
Magnesium ...Mg	24.32	Zinc Zn	65.37
Manganese ...Mn	54.93	Zirconium Zr	90.6
*Mercury Hg	200.6		
Molybdenum ...Mo	96.0		

The committee consists of F. W. Clarke, T. E. Thorpe, W. Ostwald, and G. Urbain.

Pencils for Writing on Windows.

Pencils for writing on glass, porcelain, metal, etc., may be made by incorporating talc in melted wax, adding the desired pigment, as lamp black, zinc white, chrome yellow, vermilion, etc., and rolling, as a pill mass is rolled, to form into the desired shape. About equal parts of wax and talc may be used.

Paper Towels.

Paper towels have become an article of commerce. They are supplied in rolls of suitable size, to be fitted into "hangers," the paper being perforated at proper distances so that a towel may be conveniently separated as required.

Preparing Salvarsan Injections.

Salvarsan when dissolved in water forms an acid solution which is unsuitable for intravenous injections, says Thomas Stephenson in the *Prescriber*; and he recommends the following method for preparing a suitable neutral or slightly alkaline fluid:

Into a sterile 12-ounce stoppered bottle, carefully marked at 300 c.c. (mils), put 30 to 40 c.c. (mils) of boiled normal saline solution. Break the neck of an ampul of salvarsan (containing 0.6 gramme), carefully empty the contents into the liquid, and dissolve by shaking. This will form a clear solution. Now add 23 minims of a 15 per cent. sodium hydroxide solution, made by dissolving pure sodium hydroxide in normal saline solution. This will cause a precipitate, which may be dissolved by vigorous shaking. Then add sterile normal saline solution until the 300 c.c. (mil) mark is reached. Should the solution after dilution not be perfectly bright, a minim or two more of the NaOH solution may be added, but an excess must be carefully avoided.

A solution of salvarsan made as directed the author says contains 0.6 gramme in 300 c.c. (mils). This solution has been used almost exclusively in the Edinburgh Royal Infirmary, where the intravenous method appears to be preferred.

A neutral suspension for intramuscular or subcutaneous injection, says Mr. Stephenson, may be prepared as follows: The contents of an ampul of salvarsan (0.6 gramme) are emptied into a sterile mortar, and rubbed with about 10 drops of 15 per cent. NaOH solution until dissolved. Sterilized water is then added, at first drop by drop, to the desired volume (5 or 10 c.c. [mils]). A fine suspension is formed, which is tested very carefully by means of litmus paper for exact neutrality. If necessary a drop of NaOH solution, or a drop of dilute hydrochloric acid, may be added to effect neutrality. This method has the advantage of simplicity and rapidity, but requires great care in its performance.

Another method mentioned by the author is to triturate 0.6 gramme of salvarsan with 0.7 to 1.0 c.c. (mils) of the NaOH solution until dissolved; add a drop of phenolphthalein indicator, then glacial acetic acid to exact neutralization. This brings down a fine yellow precipitate, which is washed into a test-tube and centrifuged. The supernatant liquid is poured off, and the precipitate mixed with 5 c.c. (mils) of normal saline solution.

A simple method for preparing intramuscular injections, which had been commended to Mr. Stephenson consisted in shaking the contents of an ampul (0.6 gramme) into a dry mortar, and rubbing up the powder with a sufficient quantity of sterile almond oil or liquid paraffin. Great care must be taken to have all apparatus not only sterile but dry, as the slightest trace of moisture will interfere with the proper mixing of the ingredients and prevent the formation of a homogeneous suspension.

Tincture of Iodine for Burns.

Talassano (*Sem. médicale* through *Prescriber*) has found a 2 per cent. alcoholic solution of iodine very useful as an application for burns. He says that it causes only a slight smarting for a few minutes; that the lesion heals rapidly and no irritation is produced.

Shortcuts and Improvements.

In a paper read at the 1911 meeting of the Pennsylvania Pharmaceutical Association, T. A. Egan told some of the ways in which he saved time and surmounted difficulties in preparing a number of official medicaments. Here are his suggestions:

AROMATIC SPIRIT OF AMMONIA.

To the ammonia water, which should be really 10 per cent., contained in a flask, add the distilled water and then the ammonium carbonate in selected translucent pieces, finely powdered. Close the flask and shake until the carbonate is dissolved. Set aside for twelve hours. Add the oils to half the quantity of alcohol, and place the solution in the refrigerator for forty-eight hours. Warm the other portion of the alcohol and add to it the ammonium solution. This prevents precipitation. The alcohol should not be too warm. Add the alcoholic solution of the oils to the other liquid and add enough alcohol, not water, to make the required volume.

AROMATIC ELIXIR.

Take proper amounts of the several oils used in making the specified quantity of compound spirit of orange and dissolve them in the alcohol. Put this solution in the refrigerator—the ice chamber of the fountain answers—and allow it to remain for forty-eight hours. Then let the solution stand at room temperature for twelve hours, and proceed as directed in the Pharmacopœia.

To make 1,000 c.c. (mils) of aromatic elixir, Milton Dunn, in a paper read at the same meeting, directed that the compound spirit of orange and the alcohol be mixed and 15 grammes of kaolin added, and after the mixture is shaken, 543.75 c.c. (mils) [544 will not be an excess] of water are added in small portions with agitation. The liquid is then filtered, the filtrate being returned until perfectly clear. In this filtrate a quantity of sugar equivalent to the syrup [308.75 grammes] is dissolved and the product filtered through a large pledget of cotton.

COMPOUND TINCTURE OF GENTIAN.

Mr. Egan stated that precipitation of the gentisic acid could be prevented in this preparation by replacing 2 ounces of the water in the menstruum with glycerin.

ELIXIR OF IRON, QUININE AND STRYCHNINE PHOSPHATES.

Place the soluble ferric phosphate in a wide-mouthed bottle with 30 c.c. (mils) of distilled water, and dissolve by agitation without heating, as heating prevents the obtaining of the proper "pea green" color of the finished product. Dissolve the alkaloids in the alcohol, warm slightly and add the phosphoric acid. The reaction takes place immediately and there is no precipitation.

Poisoning by Phenolphthalein.

Zabel (*Deutsch. med. Woch.*) reports a case of grave poisoning in a person who had taken about 28 grains of phenolphthalein. The poisoning manifested itself in severe irritation of the gastro-intestinal tract in connection with vomiting and colic-like pains in the stomach, profuse separation of liquid in the intestines and general prostration.

Cheerfulness is contagious. So is gloom.

Iron Caseinate Mixture.

The following formula says *L'Union Pharmaceutique* has been approved by the Copenhagen (Den.) Association of Pharmacists:

Buttermilk	700.0 grammes.
Saccharated iron oxide, soluble.	100.0 grammes.
Cognac	20.0 grammes.
Alcohol	100.0 grammes.
Fresh orange peel.....	6.0 grammes.
Aniseed	0.4 gramme.
Cinnamon	0.4 gramme.
Mace	0.2 gramme.
Clove	0.2 gramme.
Water.....	a sufficient quantity.

The buttermilk is diluted with 500 grammes of water; this liquid is strained, heated to 40° C. and set aside for an hour. The casein is collected on a linen strainer cloth, washed several times with water, and allowed to drain for twenty-four hours. The iron oxide is dissolved in 300 grammes of water, and this solution is triturated with the casein until thoroughly mixed. The orange peel and the other aromatics are macerated in the alcohol to make a flavoring tincture. This tincture and the cognac are added to the iron caseinate liquid and the whole is increased to 1,000 grammes by adding water.

Dispensing by Physicians; the Cure.

To take advantage of existing facts, said H. C. Blair, in a paper read at the 1911 meeting of the Pennsylvania Pharmaceutical Association, is the logical way to proceed in correcting any evil, including that of dispensing by physicians. His advice was to educate physicians in pharmacy as well as medicine and the doctor would know that he can not be successful as a medical practitioner if he attempts to be a pharmacist also.

"Use the confidence, placed by the public in you as a pharmacist," continued the author, "by giving them facts. Tell them that a physician who dispenses is unfit to treat them; advise them to go to a good doctor, who does not dispense; and do not hesitate to keep up your reputation for reliability by urging your patrons to secure the services of the most reliable family doctor you know. Let all physicians know that you are a real pharmacist, able, willing, and conscientious, supplying exactly what they order, of the highest quality and purity; and when you receive their orders, live up to your reputation."

Poisoning by Aspirin.

The *Journ. de la Santé* reports the following case of poisoning by aspirin. A patient, 60 years old, who suffered from rheumatism, had taken 5 grains of aspirin after a meal consisting of fish and cocoa. Half an hour after taking the remedy an edema on the lips was formed, followed by edemas in the face, the tongue and the pharynx. These symptoms, which were at first attributed to fish poisoning disappeared after twenty-four hours. Three days later aspirin was again prescribed for the patient. Half an hour after taking a 5-grain tablet of the antipyretic, symptoms similar to those already mentioned together with urticaria on the arms appeared, which lasted until the next day, which, however, finally disappeared.

More About Oxygenator Sales.

A reader of the CIRCULAR seeing the statement in the issue for October, page 557, that "the sale of the oxygenator in Vermont has been forbidden by the board of health of that State," writes that there has been no cessation of the sale of that "fake" in Vermont; and the question naturally arises as to how we reconcile our statement with the fact.

There is a vast difference between forbidding an action and preventing it. Murder and horse stealing are forbidden in this State, but there has been no cessation of either crime. Then why, our correspondent may ask, are those who sell the oxygenator humbug contrary to the warning notice of the board of health, not prosecuted? We have anticipated that question and upon investigation find that steps were being taken to that end when the supreme court of the United States rendered its famous "cancer-cure" decision. This decision is given in full in the CIRCULAR for July, page 373, and is to the effect that the national food and drugs act does not confer the right on the executive officers of the government to prohibit nostrum proprietors from making false therapeutic claims for their wares. As the Vermont law is practically identical with the federal statute touching this point, and as the false claims made for the oxygenator were of a therapeutic nature, the Vermont authorities decided to discontinue the preparation of the case intended to give the public the benefit of the decision of the board of health that the oxygenator "does not comply with the Vermont pure food laws."

Just after the handing down of the decision of the supreme court in the "cancer-cure" case, President Taft sent a special message to congress in which he strongly advocated the passage of an amendment to the food and drugs act which would make it applicable to the kind of fraud on the people that is perpetrated through the making of false therapeutic claims for nostrums. This message is printed in the CIRCULAR in connection with the supreme court decision.

Where such a palpable "fake" as the oxygenator is involved, there ought to be means for suppressing it even if the food and drugs act does not supply any. Such things as post office fraud orders have been found more or less effective in other cases, and it might not be a bad idea for the post office department to look into the oxygenator matter.

An Alkaloid from Milk.

Awerkijew (*Zeit. physiol. Chem.*) has isolated from milk which had been sterilized at 102° C. in an autoclave and then allowed to stand for three years, a basic substance which gave reactions with the usual alkaloidal reagents, had a melting point at 41° C. and seemed to have the empirical formula $C_{29}H_{49}NO_8$. This alkaloid which has been named esterine seems to be formed by the decomposition of the fats of the milk under the influence of air and light, since samples of sterilized milk which were kept for five years protected from air and light were void of this alkaloidal substance. Milk exposed to air and light for three years contained about 0.03 per cent. of the alkaloid; by excluding the light, only 0.022 per cent., and by excluding the air, only 0.01 per cent. of the alkaloid could be found.

Abstracts

Reaction of Racemic Acid with Barium, Strontium and Calcium.

Kling (*Bull. Soc. Chem. de France* through *Pharm. Journ.*) states that when a cold 3 to 5 per cent. solution of barium acetate is treated with a 10 per cent. solution of racemic acid, barium racemate is not immediately precipitated, although it is only slightly soluble, but it appears as a voluminous crystalline precipitate after standing for several hours. With calcium or strontium acetate, on the other hand, a precipitate of the racemate is obtained in a few seconds. If considerable quantities of barium are present with the calcium or strontium acetate the delicacy of the test is somewhat impaired, but nevertheless 1 part of calcium in 500,000 or 1 part of strontium in 20,000 of a barium salt may be detected by this reaction. It is not possible to effect a quantitative separation of barium from calcium and strontium in this way, because the calcium or strontium racemate always carries down a little barium salt, but the barium may be removed by dissolving the precipitate in dilute hydrochloric acid and reprecipitating with sodium acetate. Calcium in acetic acid solution may be precipitated completely by 10 per cent. racemic acid solution even in the presence of phosphoric acid, citric acid, magnesium, iron or aluminum salts. In the presence of magnesium acetate the precipitate must be dissolved in dilute hydrochloric acid and reprecipitated with racemic acid and sodium acetate. If iron and aluminum salts are present together it is necessary to treat the original solution with ten or fifteen times the quantity of neutral sodium tartrate, dissolve the precipitate in dilute hydrochloric acid, and reprecipitate with sodium acetate in the presence of a little racemic acid. Strontium may also be determined quantitatively by racemic acid in the absence of iron and aluminum salts, but the results are not quite so accurate as with calcium. In the presence of aluminum and iron salts together the quantitative separation of strontium is not possible, even if neutral sodium tartrate is added.

Determination of Nitric Acid.

Romijn (*Zeit. anal. Chem.* through *Journ. Soc. Chem. Ind.*) proposes a method for the determination of nitric acid which involves the reduction of nitrate to nitrite. It is carried out as follows: 5 c.c. (mils) of a solution made by dissolving 100 grammes of ammonium sulphate in 100 c.c. (mils) of ammonia (sp. gr. 0.96) and diluting to 300 c.c. (mils) is made up to 100 c.c. (mils) with the nitrate solution to be examined (which should contain not more than 400 milligrammes of nitrate ion per liter, and must be free from iron), 200 milligrammes of a mixture of equal weights of pure zinc dust and kieselguhr are added, and the whole is well shaken and, after five minutes, filtered into a dry flask, refiltering until clear. The filtrate contains nitrite ions equivalent to 95 per cent. of the nitrate in the original solution. The nitrite, in strong solutions, is then determined by adding 10 c.c. (mils) of N/10 permanganate and 5 c.c. (mils) of sulphuric acid (sp. gr. about 1.124) to 50 c.c. (mils) of the filtrate, shaking vigorously, allowing to stand for 15 minutes, adding 5 c.c. (mils) of potassium iodide solution (10 per cent.), and titrating the separated io-

dine with thiosulphate. 1 c.c. (mil) of N/10 thiosulphate corresponds to 2.30 milligrammes of nitrite ion. The permanganate should be standardized by a blank experiment. Weak solutions are determined colorimetrically by a-naphthylamine and sulphanilic acid. Less than 0.1 milligramme of nitrate ion per liter may be determined by the method.

Action of Carbonated Waters on Metals.

Barillé (*Compt. rend.* through *Journ. Soc. Chem. Ind.*) found that seltzer water, after contact for six months with alloys of tin and lead used for making the tops of "siphons," contained the two metals in quantities corresponding to 0.09 to 0.11 gramme of lead sulphide and 0.031 to 0.038 gramme of stannic acid per liter. According to Moissan 0.002 gramme of lead per liter should be regarded as dangerous, and according to Meillère tin salts in aerated waters may have a toxic action. The rates at which the metals dissolve doubtless depend on the composition of the alloy, but within six months, equilibrium is attained and the water then contains the quantities stated above, whether the lead-content of the alloy is 0.5 or 40 per cent. Less lead and tin are dissolved from plates of the pure metals than from alloys, solution in the latter case being probably assisted by electrolytic action. These results indicate that commercial tin, containing 0.5 per cent. of lead, is as dangerous as alloys containing much more. In Germany siphon-heads must not contain more than 1 per cent. of lead, but alloys of tin with 10 per cent. of antimony may be used. Antimony dissolves from such alloys, however; in two months a seltzer water had dissolved 0.157 gramme of antimony oxide per liter.

Estimation of Formic Acid.

The following process for estimating formic acid has been worked out by Franzen and Egger (*Journ. prakt. Chem.*). The method depends on the conversion of corrosive sublimate into calomel by formates. The formate under examination is dissolved in one liter of water and mixed with a solution of 200 grammes of corrosive sublimate, 300 grammes of sodium acetate and 80 grammes of sodium chloride in one liter of water, using 50 c.c. (mils) for each 0.5 gramme of formate. The mixture is then heated on a water-bath for three hours and the calomel collected, dried and weighed. The solution under examination should not contain more than 0.5 gramme of formic acid in one liter.

Soja Bean Oil.

Matthes and Dahle (*Arch. Pharm.*) have examined soja bean oil and found that it contains about 94 per cent. of fatty acids in the form of their glycerin esters. The solid fatty acids (about 15 per cent.) consist almost entirely of palmitic acid, while the liquid fatty acids (about 80 per cent.) are composed of 70 per cent. of oleic acid, 24 per cent. of linolic acid and 6 per cent. of linoleic acid. The authors further isolated a phytosterol from soja bean oil which they found to be identical with stigmasterol which is present in calabar beans. In addition to this substance which was obtained in crystalline form, melted at 139-140° C. and was strongly levogyrate, another phytosterol with the melting point of 169° C. and several liquid phytosterol-like substances were isolated.

Tetanus from Quinine Injection.

In the *Veterinary Record* is reported an instance of fatal tetanus in the horse brought about by hypodermic injections of quinine. In treating a febrile condition of the animal three subcutaneous injections of quinine acid-hydrochloride, 2 drams each, were given on alternate days. Later a painful swelling arose at the site of each injection followed by some sloughing; and tetanus set in about ten days after the first injection. Particular care had been taken with regard to sepsis, and the quinine was dissolved in boiling distilled water, which was allowed to cool slowly. Experiments made have led to the belief that an injection of quinine exercises a sort of magnetic attraction on tetanus spores that are either in the animal's body, or living in its intestines, drawing them up to the site of injection, which, owing to injury done to the tissues by the quinine has become an ideal anaerobic culture medium where they can grow into toxin-producing bacilli, and thus cause the death of the animal. In the case reported the animal was killed to put an end to its suffering.

Resuscitation from the Effect of Electric Stroke.

Landis (*Weekly Rep. Board of Health of Cincinnati*) says that observations made at the electrocution of two criminals would indicate that death from the current is due to paralysis of the respiratory apparatus. The person injured by a shock is in much the same condition, he says, "which is so quickly fatal in drowning. At least the same immediate treatment is necessary, and that is, artificial respiration. With a heart beating regularly and strongly, artificial respiration holds out every hope of resuscitation. Taken to a hospital, death must certainly take place by asphyxia long before the receiving ward is reached. A case shocked to unconsciousness was resuscitated at the electric plant of the Union Gas and Electric Co. some time ago, artificial respiration being kept up for fifteen minutes. These cases should be treated much as one would treat a person taken from the water—immediate, prolonged artificial respiration on the spot."

Sophisticated Opium.

Carles (*Journ. pharm. chim.*) reports an analysis of opium, which had been bought at Smyrna directly. Some of the cakes were heavy, black, hard masses, while others had a light consistence like colocynths. On examination it was found that some of the cakes contained only traces of morphine, in others the alkaloid was present to the extent of 0.1 per cent., and only in a few choice cakes as much as 5.1 per cent. of morphine could be found. Extract of opium made of this lot was almost void of morphine.

Oil of Cochineal.

Huerre (*Journ. pharm. chim.*) has examined the oil of cochineal, which is present in the drug to an extent of about 8 per cent. He has found the following physical constants: Melting point 32°, iodine number 50.5, acid number 89, iodine number of the total fatty acids 45.9, iodine number of the free fatty acids 44, glycerides 8 per cent., unsaponifiable substances 3 per cent. The fatty acids consist of 57 per cent. of myristic acid, 35 per cent. of oleic acid and 8 per cent. of linoleic acid.

Industrial Poisonings.

Zangger (*Basle Cor.-Blatt* through *Journ. Am. Med. Asso.*) has studied industrial poisoning for more than ten years and reviews his clinical experience at Zurich last year. The neurologic symptoms are often the first that attract the patient's attention, and the true diagnosis is often rendered difficult by the similarity between the effects of certain chronic poisonings and infectious diseases, and by the great variability in the reaction of different individuals to the same poison, and by the difficulty in discovering the poison involved, as it is frequently used in the industry under a fancy name or only for a certain brief period. Lead is used in 150 different industries, and many girls work with it without knowing that they have anything to do with lead, as in making or packing stiffened tissues, laces, fringes, bottle-stoppers, paints for china, papers, varnishes, cements, and repairs for parts of electric apparatus. Carbon monoxide poisoning from portable steam engines occurred in several workers in tunnels, and in others from salamanders used in drying new plaster. The escape of water gas into a factory room caused severe headache and vomiting with speedy recovery in some of the workmen but in others weakness in the legs developed, with total amnesia, the syndrome not subsiding for weeks. Forty-five cases of severe carbon monoxide poisoning were encountered in which the patients survived; the majority presented tardy symptoms. Anilin and nitrobenzol are used in the manufacture of washing powders, hair oils, shoe blacking and various other things. These substances are particularly dangerous here as they are used under fancy and various names as perfumes and essences, so that no one suspects their poisonous nature. In two cases death was directly traceable to the nitrobenzol used in making a washing powder or shoe blacking, and in a third case a child had bloody urine the day after some shoe dressing had been applied to the bare feet. The less saturated the substance the greater the tendency to chronic disturbances, both local and general. This explains why the acute poisonings often display peculiar features, due more to the special physical properties of the chemical; the chronic ones are more the result of the chemical properties than of the physical. The majority of industrial poisonous substances, the author remarks in conclusion, are fatal only with relatively large doses, but they induce special and often typical syndromes, particularly of nervous character, when the system is long subjected to their influence.

Separation in Phenol Ointment.

Reports of the separation of phenol from fatty vehicles are common, the phenomenon being particularly marked in phenolic ointments made with petrolatum. It is not quite clear whether this is due to the resumption of the homogeneous state of the fatty substance with a consequent squeezing out of the phenol interposed between fatty particles separated by the process of admixture, or to hygroscopy and salting out. That it sometimes results untowardly is well known, particularly in warm climates. Dalma-hay-Allan reports (*Brit. Med. Journ.*) a severe phenol burn resulting from the application of the top layer of a separated ointment to an insect bite on the hand. Phenol ointments are very dangerous even when separation does not occur, as gangrene may result from their application.

Determination of Nitrogen in Nitrites.

Dey and Sen (*Zeit. anorg. Chem.* through *Journ. Soc. Chem. Ind.*) find that by the interaction of barium nitrite solution and hydrazin sulphate, barium sulphate is precipitated and hydrazin nitrite formed, the latter slowly decomposing (more rapidly with rising temperature), a mixture of nitrogen and nitrous oxide being evolved. If an excess of the hydrazin salt be employed, the decomposition of the nitrite appears to proceed according to the equations, $N_2H_4 \cdot 2HNO_2 = N_2 + N_2O + 3H_2O$ and $N_2H_4 \cdot HNO_2 = NH_3 + N_2O + H_2O$, and, the proportion of nitrogen evolved as such being the same for other nitrites as for barium nitrite, the reaction, says the authors, furnishes an accurate and convenient method for the determination of nitrite nitrogen in nitrites generally, including those of organic bases. The nitrite solution is treated with an excess of hydrazin sulphate in a nitrometer, and, after dissolving the nitrous oxide by introducing water and shaking until the volume of gas remains constant (three washings with 20 c.c. [mils] of water each generally suffices), the residual nitrogen is measured; this volume represents two-thirds of the total nitrite nitrogen. A determination may be made in 15 minutes.

Identification of Atoxyl.

For distinguishing atoxyl from compounds having similar chemical composition, Fiori (*Boll. chim. farm.*) recommends the following reactions: In a cold aqueous solution of atoxyl the addition of a solution of calcium hypochlorite produces an orange-red coloration or a yellow precipitate. Sodium methylarsinate and sodium cacodylate do not give any colorations under the same conditions. Mercuric chloride gives with atoxyl a white precipitate, which is soluble in hydrochloric acid and ammonia; with sodium methylarsinate a brick-red precipitate is produced, which is also soluble in hydrochloric acid and ammonia; no reaction is produced with sodium cacodylate and mercuric chloride. If the solution of a small quantity of atoxyl in concentrated hydrochloric acid is boiled, then diluted with water and finally mixed with a solution of calcium hypochlorite, an intense violet color is produced. By fusing a small quantity of atoxyl with caustic soda, the arsenic is converted into arsenic acid, which can be identified in the usual way.

Detection of Arbutin in Plants by Micro-sublimation.

Tunmann (*Berichte Pharm.* through *Pharm. Journ.*) says that while arbutin cannot be sublimed for micro examination without decomposition, the hydroquinone formed by its hydrolysis with dilute hydrochloric acid can be easily detected in that manner. The finely disintegrated material is treated in a micro cell with 2 or 3 drops of hydrochloric acid 1:10 and allowed to stand for a few minutes. The mixture is then warmed on an asbestos plate, a second slide, fixed 3 mm. above the material, being used to condense the sublimate. In the presence of arbutin very characteristic crystals of hydroquinone will be obtained. The author has been able easily to demonstrate in this way the presence of arbutin in *arctostaphylos uva ursi*, *vaccinum myrtillus*, *kalmia angustifolia*, and *pyrola rotundifolia*.

Preparation of Oxalic Acid.

Hedenström (*Chem. Zeit.* through *Journ. Soc. Chem. Ind.*) reports laboratory experiments undertaken with a view to ascertain the most favorable conditions for the production of oxalic acid from sawdust. 3.72 grammes of crystallized oxalic acid were obtained from the oxalate formed by heating 3 grammes of purified cotton-wool with 12 grammes of potassium hydroxide (dissolved in 20 c.c. (mils) of water) with constant stirring to 280° C., in a nickel crucible. Only about 1 gramme of acid was obtained when the temperature was not allowed to exceed 225° C. 3 grammes of air-dry oak sawdust (losing 5 per cent. at 100° C.) similarly treated yielded 3.66 grammes of acid when heated to 280° C., but only 2.3 grammes by heating only to 235°—240° C. Preliminary extraction of the sawdust with dilute potassium hydroxide solution was found to reduce the yield. No decomposition of oxalic acid was found to occur when 4 grammes of the acid were heated with 12 grammes of potassium hydroxide for half an hour at 280° C.

Powdered Ipecac of French Commerce.

Planchon and Juillet report (*Bull. pharm. Sud-Est.* through *Pharm. Journ.*) that out of forty-eight samples of powdered ipecacuanha root examined, only sixteen met the requirements of the French Pharmacopœia, which restricts the product of powder to 75 per cent. of the weight of the original root taken. In this manner it is intended to avoid the occurrence of an undue proportion of woody fiber in the powder. Another sixteen showed the presence of an undue proportion of tracheids and woody debris, indicating that the whole root, including the greater portion of the medullium, had been ground to powder. The remaining sixteen samples were more grossly adulterated. They contained ground olive stones in quantity varying from 3 to 40 per cent.

Essential Oil of Wall-Flowers.

Kummert (*Chem. Zeit.*) has isolated the essential oil of the flowers of *cheiranthus cheiri*, which he describes as a yellow liquid, with a disagreeable odor and exhibiting in alcoholic solution a bluish fluorescence. The following constants were found: Specific gravity 1.001, acid number 9.36, ester number 20. From the oil the following constituents could be isolated: Mustard oil-like compounds, ketons and aldehydes with odors suggesting those of violets and hawthorn, nerol, geraniol, benzoyl alcohol, linalool, indol, anthranilic acid methylester, acetic acid, salicylic acid, phenols and lactones. Strongly diluted with alcohol the oil exhibits the agreeable odor of wall-flowers.

Fatal Poisoning by Salvarsan.

The following case of death which occurred after administering salvarsan is reported by Luque-Morato (*Rev. de med. y de cirurg. prat.* through *Rép. de pharm.*) A patient, 21 years old, suffering from secondary syphilis without complications, had received an injection of 0.4 gramme of salvarsan. Three hours after the injection the patient, whose heart, lungs and kidneys were in good condition, was attacked by vomiting, diarrhea and violent palpitations. The temperature dropped very rapidly, the face became very pale and after thirty hours the patient died.

Röntgen Ray in Hypertrophied Prostate.

Hunter at a meeting of the Röntgen Ray Society said that in selected cases of hypertrophied prostate röntgenotherapy was of great value. When the increase in size was due largely to overgrowth of the epithelium the röntgen ray would quickly diminish the size of the gland, but not so if there was much increase in the amount of connective tissue. The results from the treatment depended largely on the histological structure. Massage was indicated as an adjuvant. The mortality was nil.

Artificial Serums.

Pharmacists, who are often called upon to prepare at a moment's notice some particular artificial serum

ward, the body bowed forward, over the cushion under the shoulders. Another point is that the arms are held with the four fingers above the elbow, on the inside, the thumbs on the outside of the arms. This permits a stronger control of the arms in pushing them toward the floor. This modified technic floods the lungs much more profusely with air.

Test for Caulophyllin.

Gibbard (*Analyst*) proposes the following method for the detection of the resinoid caulophyllin in galenical preparations: Evaporate to dryness 5 c.c. (mils) of an extract of the material made with 80 per cent. alcohol. Stir the residue with 1 c.c. (mil) of water, and then treat it with 2 c.c. (mils) of strong

Constituents of Artificial Serums.

(Parts in 100 parts of Sterile Water.)

Name.	Sodium Chloride.	Sodium Chlorate.	Sodium Sulphate.	Sodium Phosphate.	Sodium Carbonate.	Sodium Bicarbonate.	Sodium Lactate.	Sodium Glycerophosphate.	Potassium Chloride.	Potassium Sulphate.	Potassium Iodide.	Calcium Chloride.	Magnesium Sulphate.	Iodine.	Oxygen.	Phenol.	Glycerin.	Glucose.
Normal Saline....	0.95*	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Bardet	1.0	..	2.0	3.0	..	..	..	..	..	..	..	..	..	..	..	0.5	..	..
Cantani	0.4	..	..	..	0.2	..	..	..	..	..	..	..	..	..	..	..	..	..
Chéron	3.0	..	8.0	4.0	..	..	..	..	..	..	..	..	..	..	..	1.0	..	..
Crocq	..	..	..	2.0	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Dujardin-Bea- metz.....	0.31	..	..	0.05	0.1	..	0.1	..	..	0.1	..	..	..	..	..	..	..	..
Fleig	0.65	..	..	..	..	0.1	..	0.1	0.03	..	..	0.02	0.03	..	Sat.	..	..	0.1
Hayem (1).....	0.5	..	1.0	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Hayem (2).....	0.75	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Hérard	0.45	0.05	..	0.125	..	..	..	..	0.025	..	..	..	..	..	..	..	..	..
Huchard	5.0	..	2.5	10.0	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Huchard (Concentrated)	5.0	..	2.5	10.0	..	..	..	..	..	..	..	..	..	..	..	1.5	..	..
Kronecker and Lichtenstein ..	0.6 to 0.75	..	..	..	0.01	..	..	..	..	..	..	..	..	..	..	..	..	..
Latta	1 to 1.5	..	..	..	0.05	..	..	..	..	..	..	..	..	..	..	..	..	..
Leclerc	4.0	..	0.5	0.5	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Locke	0.9	..	..	..	..	..	..	..	0.01	..	..	0.025	..	..	..	..	..	..
Luton	..	..	10.0	4.0	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Marshall	0.8	..	..	..	..	0.1	..	..	..	..	..	..	..	..	..	..	..	..
Mathieu	1.0	..	6.0	4.0	..	..	..	..	..	..	..	..	..	..	..	..	20.0	..
Quinton.....	Sea-water diluted till isotonic with blood serum.																	
Renzi	0.6	..	..	..	..	..	..	..	..	..	0.3	..	..	0.1	..	..	..	..
Ringer	0.95	..	..	..	..	0.015	..	..	0.025	..	..	0.02	..	..	..	..	..	..
Rogers (Cholera)	1.14	..	..	..	..	..	..	..	0.07	..	..	0.046	..	..	..	..	..	..
Roussel	..	..	..	5.0	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Sapelier	6.0	..	..	0.45	3.1	..	..	..	0.5	0.35	..	..	..	..	..	..	..	..
Schiess	7.5	..	..	..	..	5.0	..	..	..	..	..	..	..	..	..	..	..	..
Sydman	0.6	..	..	..	..	0.1	..	..	..	..	..	..	..	..	..	..	..	..
Trunecek	4.92	..	0.44	0.15	0.21	..	..	..	..	0.4	..	..	..	..	..	..	..	..
Vandeveld	3.0	..	..	3.0	2.5	..	..	..	3.0	2.0	..	..	..	..	..	..	..	..

*In this country normal physiologic salt solution usually contains from 0.6 to 0.8 part of sodium chloride in 100 parts of sterile water.

desired by physician or surgeon will doubtless find the accompanying table useful. It is taken from the *Prescriber*.

Artificial Respiration.

Meyer (*Berlin klin. Woch.* through *Med. Bull.*) has modified the Sylvester method of restoring respiration, drawing the arms upward, but pressing them down toward the floor, the body thus assuming the opisthotonus attitude, the head and heels bent back-

ward, the body bowed forward, over the cushion under the shoulders. Another point is that the arms are held with the four fingers above the elbow, on the inside, the thumbs on the outside of the arms. This permits a stronger control of the arms in pushing them toward the floor. This modified technic floods the lungs much more profusely with air.

Bismuth Subnitrate to Preserve Fats.

Hudelo, Levy, and Tularne (*Journ. pharm. chim.* through *Pharm. Journ.*) say that natural fats may be kept unaltered for a very long time by adding from 1 per cent. to 5 per cent. of bismuth subnitrate.

The Modern Materia Medica.

Biohydron, Coleman, is said to contain acetic ether, ferric citrate, calcium citrate and citric acid.

Biolactyl is a culture of the lactic acid bacillus. It is furnished in liquid form and as tablets.

Biosine le Perdriel is said to be iron and calcium glycerophosphate.

Blaudiol is a liquid preparation said to contain the ingredients present in Blaud's pills.

Bromotal is the name of a cod liver oil emulsion, with bromoform.

Brophenin occurs as a colorless and tasteless powder, which contains isovalerianic acid and bromine.

Bulgarine is the name for cultures of the lactic acid bacillus. It is marketed both in the form of tablets and as liquid.

Capsules Sérafon contain iodoform and guaiacol.

Cascarmat is an elixir of cascara sagrada free from bitterness.

Cremula is the name for troches which consist of equal parts of chocolate and milk paste, the latter being prepared from milk and sugar by partial evaporation. These troches can be medicated in the usual way.

Eukadol is the name for a tar preparation which does not possess the odor of tar.

Ferrocitin contains iron and lecithin.

Formosan, Simon, exploited for the treatment of obesity, is said to contain the active principle of sea-algæ containing iodine, and laxatives.

Gayatine is an aqueous solution of sugar and potassium sulphoguaiacolate.

Glycerophosphate Oil Emulsion is said to contain calcium glycerophosphate, olive oil and glycerin.

Hallecethin is lecithin hematogen.

Iodalose, Galbrun is said to be a stable combination of iodine and peptone.

Iodized Olive Oil, Sasso, occurs as a transparent, yellowish-green oily liquid, said to contain 0.15 gramme of iodine in each 100 grammes of olive oil.

Jecovol is a cod liver oil emulsion containing in addition, the glycerophosphates of sodium, calcium and iron.

Laminol is offered as a substitute for cod liver oil. It is said to contain 0.05 per cent. of iodine, 2 per cent. of free fatty acids and 0.01 per cent. of phosphorus.

Lenirenin is said to contain lenicet, freshly precipitated and dried aluminum hydroxide, cocaine and extract of the suprarenal glands.

Man Tam Pastilles are said to consist of manna, tamarind pulp, senna leaves and wheat starch.

Neuripin is made from fresh nerve fibers with the aid of olive oil and is rendered stable by the addition of bromine.

Otagan is the name for a stable, clear solution of extract of opium and antipyrin in glycerin.

Radiopyrin is said to be "radio-active" acetyl salicylic acid. It is marketed as tablets.

Proposote is a preparation resulting from the treatment of creosote with phenyl-propionic acid.

Ristin or Ethyleneglycoll-mono-benzoic acid ester is prepared by reaction between ethylene-chlorhydrin and sodium benzoate. It occurs as a crystalline mass, melting at 46° C. and possessing a faint aromatic odor. It is used in alcoholic solution for the treatment of scabies.

Salimenthol-Carbon Tablets contain vegetable charcoal and salimenthol.

Satopan is the name for an iron-quinine preparation which also contains bromides, calcium salts and glycerophosphoric acid.

Sotopan is said to contain quinine, iron, bromine, calcium and phosphoric acid. It occurs as a brownish liquid, with an agreeable odor and taste and is also marketed in the form of tablets.

Stearosan is santalyl stearate.

Sudian is a potassium soap containing sulphur.

New Shoe Polish Formulas.

From a little book on "Casein" by Robert Scherer, translated from the German by Charles Salter, the information given below is copied:

Beuse's Shoe Polish.

Shoe polish may be made to give a greatly improved gloss by the addition of a solution of casein, prepared by boiling in water with borax or soda. At the same time the addition of iron resinate imparts the property of staining the leather a deep black, instead of merely forming a black coating.

The iron resinate is prepared by adding an aqueous solution of green vitriol (ferrous sulphate) to a resin soap obtained by boiling resin with soda. The other ingredients of the polish are as usual: ivory black, syrup or dextrose, fat or oil. A blue-black sheen may be imparted to fine polish by the addition of a little Paris blue dissolved in water.

The following is a typical recipe for these polishes:

Casein	16 parts by weight.
Soda crystals.....	6 parts, dissolved in
Water	48 parts, and mixed with
Ivory black.....	145 parts.
Dextrose	75 parts.
Olive oil.....	12½ parts.
Iron resinate.....	5 parts.

This should be further mixed with 5 parts of ferric cyanide, dissolved in 1 to 2 parts of oxalic acid and 5 of water, the whole being stirred in a suitable stirrer. For solid polishes, the proportion of solid ingredients is increased.

Casein Shoe Cream.

Casein exhibits the property of furnishing with thick turpentine a handsome, shining compound, suitable for various purposes, especially shoe polish. For this purpose 4 parts of galipot are melted, strained through a sieve, and boiled with 3 parts of water and 2 of caustic soda lye (density, 37° B.) until a film has formed on the surface, whereupon another 1 part of the soda lye and 50 to 60 parts of warm water are added; 15 parts of soda crystals are dissolved in the liquid and 10 parts of powdered casein are stirred in until dissolved. This is followed by 10 parts of grey carnauba wax, and the whole is boiled until homogeneous. If a cooled sample be found too stiff, a little water is added. An anilin dye that is fast to alkali may be used for coloring.

The name ferric cyanide given in the first formula is a common misnomer; the compound meant is ferric ferrocyanide—prussian blue. We would suggest a replacement of this by the more modern "soluble blue," and the omission of course of the (poisonous) oxalic acid which would be thus rendered useless. It may be well to explain that the term galipot in the second formula is a synonym for crude burgundy pitch.

Notes and Queries.

NOTICE.—It is desirable that all questions to be answered under this head should be received before the fifteenth of the month and they must be accompanied with the name and address of the writer.

Queries are not answered by letter. The information supplied in these columns is intended for the benefit of our readers in general, not for the profit of the individual inquirer only.

Several Complications.—L. H., New York, submits for consideration the following prescription:

R̄ Tinct. ferri chlorid.....	12.00
- Potassi chloratis.....	0.50
Glycerini	15.00
Liq. antiseptic, U. S. P.....	q.s. ad 120.00

This is a common prescription, he says, and one that presents many "difficulties" in which he desires assistance.

Truly this is an example of multiple interaction more or less disconcerting if not unfavorable to the desired results. The enumeration of a few of the troublesome incompatibles will suffice to show the mixture's lack of stability. The most noticeable result of incompatibility is the darkening of the mixture. This is due to the interaction of the oil of gaultheria and the thymol of the antiseptic solution with the tincture of iron, and is enhanced by the hydrolysis of the ferric chloride into ferric hydroxide and hydrochloric acid, the glycerin aiding in the hydrolysis. The muddiness that becomes apparent after six to ten hours is due chiefly to the formation of iron compounds with the boric and benzoic acids, and with the decomposition products of the reaction between the tincture and the potassium chlorate.

We do not believe that the incompatibilities between these ingredients are especially dangerous to the user. They can not be prevented, but they may be considerably inhibited and actual precipitation practically prevented by increasing the amount of glycerin, dissolving the potassium chlorate in the antiseptic liquid and adding to this solution the glycerin and the tincture of iron previously mixed intimately. We suggest that the shortcomings of the prescription be pointed out to the prescriber, and that he be enlightened in the manner of improving the combination as hereinbefore mentioned.

Burow's Solution.—"Subscriber," New Jersey.—As quoted in the CIRCULAR on more than one previous occasion, Hager's formula for this preparation, which he calls liquor aluminæ aceticæ, Burow, is as follows:

a Lead acetate (crystals).....	100 grammes.
Distilled water.....	300 grammes.
b Alum (potassium).....	66 grammes.
Sodium sulphate (crystals)....	12 grammes.
Distilled water.....	500 grammes.

Stir a while, and let the solution remain in a cool place for two days, then filter, without washing out the sediment.

Mix the two solutions.

This preparation should be made during the cold season of the year; at a temperature above 10° C. (40° F.) a little lead sulphate enters into it.

The CIRCULAR has also printed the following formula, contributed by A. Halpern, New York who

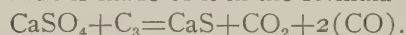
says that by following it there is obtained a product giving a negative test for both alum and lead sulphate:

Aluminum sulphate.....	125 grammes.
Lead acetate.....	220 grammes.
Water.....	enough to make 1,000 grammes.

While on this subject we might say that Dieterich gives these directions for preparing this solution: "Dissolve 60 grammes of aluminum sulphate in 500 c.c. (mils) of distilled water, and 100 grammes of lead acetate in 300 c.c. (mils) of distilled water. Cool both solutions down to 10° C., and slowly pour the lead acetate solution, with stirring, into the aluminum sulphate solution. Set the mixture aside in a cool place for three or four days, then filter. In the cold the mixture deposits more lead sulphate and hence it should be kept in as cold a room as possible for the period stated."

In this connection the formula for solution of aluminum acetate, N. F., is of interest, although this solution and that of Burow's are not at all identical. An exhaustive note on the N. F. formula by Dr. George C. Diekman was published in the CIRCULAR for May, 1908, page 224, and this was followed in the issue for the next month, page 275, by a further contribution to the subject from Otto Raubenheimer, in which some comparisons of various related formulas were made.

Preparing Sulphurated Lime.—C. A. P., Florida, writes: "In the preparation of calx sulphurata a small amount of starch is used, presumably to assist as a 'carrier' in the reduction of the calcium sulphate. What I want to know is, what becomes of the starch, as no mention is made of it in the formula—



"Is the starch altered, or does it remain unchanged? And if unchanged, why does not the finished product respond to the iodine test? Also, if unchanged, how does it resist the high heat necessary for the reduction? Please express its use in a chemical formula."

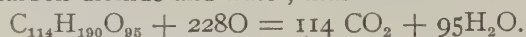
The starch is used in making sulphurated lime because, in the temperature at which the reaction takes place, the starch is carbonized and the nascent carbon aids materially in the reaction, producing a large proportion of calcium sulphide. Whether this aid is most effective at the beginning (in starting) or at the end of (in finishing) the reaction, is not clearly known, but that the freshly-liberated carbon aids in reducing the calcium sulphate is a fact. Any substance which would carbonize without complete burning, as gums, sugars, organic acids, etc., could be used, with a similar result. Starch is selected because it is cheaper than the other available substances, and because it does not change the appearance or odor of the product, while sugar, for instance, would produce caramel as well as carbon, and so would darken the product.

Of course, when the starch is carbonized it ceases to be starch, and so will give no reaction with iodine. Probably the only starch-product which remains is carbon, in the form of charcoal, a part of which (or possibly the whole) has reacted with the calcium sulphate.

Sulphurated lime is not a definite body, but consists of a mixture of calcium mono-sulphide and (unchanged) calcium sulphate. The object being to produce as large a proportion of the monosulphide as possible, and the use of nascent, or freshly-liberated,

carbon having been found an aid to this end, starch is added to the charcoal called for by the official recipe.

As to the chemical reaction by which the carbon is liberated, no one knows exactly what it is. The generally accepted formula for starch is $(C_6H_{10}O_5)_n$, but what "n" means is indefinite. One chemist states that the molecular weight of starch is upward of 3000, which would make "n" at least 19, and the formula for starch $C_{114}H_{190}O_{95}$. When heated these elements split up in a complex manner, according to the intensity of the heat and the supply of air. At a high heat, and with a full supply of air, the products would be carbon dioxide and water, thus—



At lower temperatures the products are more complex, particularly if access of air is hindered. Then free carbon is liberated, some water is driven out, and some oxides of carbon are probably formed. The simplest reaction (using the simpler formula) would be $C_6H_{10}O_5 + \text{heat} = 6C + 5H_2O$, but probably this reaction is impossible in practice. The actual reaction depends upon the degree of heat, the time of heating, the supply of air, and probably upon the influence of the calcium sulphate. Any expressed reaction would be fanciful. But it is known that under the conditions stated in the Pharmacopœia, free carbon is liberated from the starch, and the reduction of the calcium sulphate is promoted thereby.

"Who Owns the Prescription?"—R. C., Oregon, wants to know "whether there has been any court decision upholding the druggist in refusing to give a customer copy of prescription when the physician uses a blank on which he has printed, 'Not to be refilled nor copy given.'"

We do not know of any such decision, and appeal to our readers for such information on the subject as they may be able to give.

Those statutes with which we are familiar that touch upon the custodianship of the prescription specify that the druggist who fills it must keep it on file. The North Carolina law requires this, and also that upon request of the physician or patient, the druggist shall supply a true copy of it. Our own opinion as to the ownership of the prescription, previously expressed, is that it belongs to the one who has it until someone else establishes a better right to its possession.

Syrup for Disguising the Taste of Quinine.—A. D. C., Georgia.—Perhaps the following formula, or such modification of it as your experience may cause you to make, will answer your purpose, although the resultant preparation is far from tasteless:

Powdered chocolate.....	2 ounces.
Sugar	1½ pounds.
Tincture of vanilla.....	1 ounce.
Aromatic fluidextract of yerba santa	1 ounce.
Glycerin	4 ounces.
Boiling water.....	enough.

Mix the chocolate and sugar with enough boiling water to make 2 pints. Allow the syrup to cool and then add the other ingredients.

To a syrup so made quinine or any of its salts may be added in the proportion desired.

Converting Degrees from Fahrenheit to Centigrade.—C. H. Stocking, Michigan, has found the following rule easy to apply: F—32 is to 180 as C. is to 100. For example, $92^\circ F =$ how many degrees C.? $92 - 32 = 60$, and $60 : 180 :: 33\frac{1}{3} : 100$; therefore $92^\circ F. = 33\frac{1}{3}^\circ C.$

This rule, it seems to us, is not so easy as the one we use, which is: To convert degrees Fahrenheit into degrees centigrade, subtract 32, divide by 9, multiply by 5. For example, take $212^\circ F.$, subtract 32, and we have 180; into this 9 goes 20 times; and 5 times 20 is 100. To convert degrees centigrade into degrees Fahrenheit, divide by 5, multiply by 9, and add 32. It is easy to remember these rules, because we know that the boiling point is 212° on one scale and 100° on the other, and those two figures suggest the application of the rules to themselves, and that enables us to remember the factors to apply to any other given figures.

How to Secure a Serial Number.—F. A. K., New York.—Apply to the secretary of agriculture, Washington, D. C.

Although the food and drugs act of June 30th, 1906, is over five years old, much misapprehension seems to exist about some of its simplest phases. The law does not apply to goods manufactured and sold entirely within any one State. When it does apply it does not require any guaranty, or require any serial number in case such guaranty is voluntarily given. The purpose of the guaranty is to shift responsibility for any adulteration or misbranding under the act from the shoulders of the dealer to those of the firm which gives the guaranty, and the latter may be in the form of a letter, or be attached to the invoice of the goods, or be in some other shape.

To save trouble for the manufacturer, wholesaler and retailer, and to make it easy to establish the fact that a guaranty was given, and by whom, as to the legality of any particular package of goods, the serial-number plan was put into operation by the three cabinet officers whose business it is to administer the law. The plan is this: Instead of sending a written or printed guaranty with each lot of goods sold, the manufacturer or wholesaler is permitted to file a general guaranty with the secretary of agriculture, which guaranty is kept on file under a certain number, and any package of goods to which this number is attached by the guarantor, together with the usual legend, "Guaranteed by ——— under the food and drugs act, June 30th, 1906," is as fully guaranteed as if a written guaranty, signed by the concern giving it, were pasted on the container.

In applying to the secretary of agriculture for a serial number, the manufacturer, wholesaler or other dealer wishing to give the guaranty, should file some such statement as this, signed in ink:

I (we) the undersigned do hereby guarantee that the articles of foods or drugs manufactured, packed, distributed, or sold by me (us) [specifying the same as fully as possible] are not adulterated or misbranded within the meaning of the food and drugs act, June 30th, 1906.

Failure to have given such a guaranty is no defense for the manufacturer in case his goods are found to be adulterated or misbranded; but the presence of a manufacturer's guaranty is a defense for the dealer who innocently sells adulterated or misbranded goods.

Saturated Solutions.—I. Mishkin, New York, referring to the note on the "Mathematics of Solution" in the CIRCULAR for October, page 569, writes:

Most druggists dispense 1 ounce (by measure) of a saturated solution of KI, whenever 1 ounce of saturated solution is prescribed, whereas solutions as a rule are made by weight; so in this instance the same rule of three will show the exact amount of KI necessary to make 1 ounce of saturated solution; $1.7:1::456.7=268.64$ grains of KI and water q. s. to make 1 ounce by weight will make a saturated solution.

Don't you think it is perfectly legitimate to dispense 1 ounce by weight, when the physician orders 1 ounce of a saturated solution of KI?

We are not quite able to follow Friend Mishkin's figures. In the first place, in answer to his query, we do not think that American physicians, as a rule, expect to receive an ounce by weight when they ask for an ounce of a liquid. But supposing that a physician, or anybody else, specified that he wanted an ounce by weight of a saturated solution of potassium iodide, would he expect 456.7 grains to be dispensed? An ounce by measure of water weighs 454.6 grains, and an apothecaries' ounce by weight of water (or anything else) is 480 grains, so the factor 456.7 seems irrelevant, whether we are discussing measured ounces or weighed ounces. We do not know where our correspondent picked it up. A grain of potassium iodide and 0.7 grain of water make a saturated solution weighing 1.7 grains. Now, if an apothecaries' ounce by weight of such a solution is wanted, the rule of three is applied and we have: $1.7:480::1:282.35$ (which is the number of grains of potassium iodide required, with water enough to weigh 480 grains); or, $1.7:480::0.7:197.65$ (which is the number of grains of water required, with potassium iodide enough to make 480 grains). By way of proof we may add the indicated weight of potassium iodide (282.35 grains) to the indicated weight of water (197.65 grains) and get the weight of 1 ounce of the saturated solution (480 grains).

Another reader, who does not care to come into the limelight and receive his meed, writes:

Allow me to say that one troy ounce of potassium iodide dissolved in $5\frac{1}{2}$ drams of water will make a fluid ounce of a saturated solution. This is "rule of thumb"—not figured. I don't know of any method by which it can be figured.

Analgesic Balm Bengué.—E. C. C., Iowa.—In more than one former issue of the CIRCULAR is given the formula below, from *Formulaire de préparations pharmaceutiques de la Société de Pharmacie d'Anvers*:

Baume de Menthol Composé.

(Baume Analgesique Bengué.)

Lanolin	45 grammes.
Yellow wax.....	10 grammes.
Distilled water.....	15 grammes.
Menthol	15 grammes.
Methyl salicylate.....	15 grammes.

Antimalarial Tonic.—D. C. B., Mississippi.—We do not know the composition of the proprietary article you name. We have never seen a sample of it, but suspect, from your description that it is some kind of a cinchona preparation. Of formulas for syrups and elixirs of various salts of quinine, as well as of some of the other alkaloids of the cinchona bark, there is no dearth.

Cuticura Resolvent, and Munyon's Remedies.—Howard W. Gardner, Pennsylvania, writes in further answer to the query of C. S., Mississippi, in the CIRCULAR for October, page 573, that an analysis of cuticura resolvent has been published by the British Medical Association and reprinted in a book entitled *Nos-trums and Quackery*, by the American Medical Association. He also says that every druggist should have a copy of this book, as it costs only \$1 and contains exposés of many medical frauds. He mentions the fact that the book says that *Munyon's kidney pills*, so far as chemical analysis reveals, contain only sugar—that and nothing more.

In the CIRCULAR for last January, page 45, is an account of the imposing of a fine of \$600 on Dr. Munyon by the United States district court at Philadelphia, as a result of his plea of guilty to the three charges that his "special liquid blood cure," his "blood cure," and his "asthma cure" were misbranded under the food and drugs act. Chemists testified at that time that certain of these "cures" consisted of nothing but sugar. In the CIRCULAR for the following month, page 104, Dr. Munyon explained that if his remedies have no remedial value the trouble is with Hahnemann's system.

We have often urged druggists to secure the publications on "patent" medicines issued by the American Medical Association, Chicago. In the CIRCULAR for January, 1910, page 10, is an article in which are given extended citations from the publication of the British Medical Association (*Secret Remedies, What they Cost and What they Contain*) to which our correspondent refers. We thank him for his interest.

Incidentally, Mr. Gardner, who is a young man and a clerk, seems to be of the right sort, for he looks forward to the time when deceiving the sick by false representations as to the curative properties of medicines will be punished by sending the guilty to prison. It is encouraging to those who believe in truth and honor in medicine as in other things to see that young men are now growing up under auspices which cause them to take views of the nostrum evil radically different from those widely held a generation ago.

Betul-ol.—E. C. C., Iowa.—We do not know the composition of this preparation. Its principal ingredient is said to be oil of *betula lenta* (sweet birch). On the label of the bottle it is described as being "mentho-methyl-oleo-salicylate chemically combined with 2 per cent. of chloral." It is also stated to be a 2 per cent. solution of menthol in a methyl ester of the salicylic radical.

Canthrox.—W. L. W., Ohio.—We have not seen any statement of the composition of this "prescription nostrum." For a "powder that will dissolve in water and one that will lather for shampoo" we offer the following formula:

Ammonium carbonate, powdered....	2 ounces.
Sodium carbonate, dried.....	8 ounces.
Saponin, crude.....	1 ounce.
Borax, powdered.....	5 ounces.

Mix intimately in a warm mortar; put up in paraffined or parchment paper.

Formulas for other foaming shampoo powders appear in the issues of the CIRCULAR for November, 1910, page 575; and September of the same year, page 468; and in many earlier ones as well.

Ordinary Capsules for Liquids.—George H. Waltz, Maryland, who writes as if he were a young man who makes some use of his powers of observation, and is certainly one who has the right idea about reducing to manuscript some of the things he observes and passing it along for the benefit of others, favors us with the following:

Since it is not a daily occurrence to have prescriptions calling for liquids or semi-liquids to be dispensed in capsules, it hardly justifies the average retail druggist to stock empty soluble elastic capsules, especially as the ordinary gelatin capsule may be used to equally good advantage in many instances.

Experience has shown how the following method can be employed satisfactorily: The required amount of medicament to be used for each dose is put into the larger portion of the empty capsule after the removal of the cap, then the edge at the opening of that portion containing the medicament is moistened with water, and before it has time to dry the cap is put on and the capsule is pressed between the thumb and index finger in such a way that the edge of the larger portion of the capsule at the line of contact with the curved part of the cap forms a scalloped edge which indicates a welding or cementing. To make sure that the capsule is tightly sealed the operator should lay each finished capsule on a filter paper and watch for any leakage. It is advisable to fill more than the required number of capsules, as there may be among them some failures.

Should the operator not feel sure that the capsules are thoroughly sealed and fears that a future leakage may appear, it is quite practical for him to put the finished capsule in an empty capsule of a larger size and seal the outer one just as the inner one had been sealed.

A little experimentation will show which make of capsules possesses in greatest degree two desiderata, elasticity and resistance.

A warning which we may add to the foregoing is that druggists should be sure that the liquid dispensed as directed by our correspondent will not dissolve the capsule. A note in which this feature of the case is mentioned appears in the CIRCULAR for January, page 79.

We thank Mr. Waltz for his manifestation of the give-and-take spirit which we wish to pervade this department, and trust that not only will he let us hear from him again, but that his example will prove an inspiration and an impetus to others.

Liquid Metal Polish.—C. C. C., Ohio, wants a formula for a metal polish. He says he has found a number of them in the issues of the CIRCULAR for last February, "but none for high polish metals." He adds: "There seems to be a number of very good polishes on the market, but none of them will retain their brilliancy over twenty-four hours."

We fail to find the formulas in our February issue to which our querist refers, but in the May number, page 256, we find a note on the subject which gives many references to previous issues in which such data appear, as well as a formula for an oleic acid and kieselguhr combination. A polish of a different type has the following formula:

Sodium hydroxide.....	2 drams.
Gilder's whiting.....	2 ounces.
Infusorial earth.....	3 ounces.
Solution of sodium silicate.....	1 pint.

Other notes on and formulas for such preparations have since been given in the issues for June, page 308; September, page 491; and November, page 634. As the last-mentioned number contains the kind of formulas which our querist seems to desire, and as

this had not reached him when he wrote, but has since doubtless done so, we may now consider that this portion of his query has been answered.

We presume that it is the article to which it has been applied and not, as he has it, the polish itself, which C. C. C. desires to remain brilliant. If this is the case we fear we shall be able to give him but little aid, as the loss of brilliance of a polished metal surface is usually due to oxygenation or some other chemical change brought about by an element in the atmosphere. Where its application is practicable it is customary to prevent, or at least retard, this change by coating the polished article with lacquer or a solution of collodion.

Chewing Gum.—C. F. F., California.—In addition to the many notes on this subject, with formulas, which appear in the files of the CIRCULAR, reference to some of which appears in the number for September, page 480, there is a reprint from a British journal in last month's issue, page 649, which gives some information on it. However, it can not be too strongly emphasized, that equipment is the prime requisite in the manufacture of chewing gum, not a formula.

Sulphuretted Hydrogen in Bitter Water.—J. J. H., New York asks: "If a water, such as the Hungarian bitter water, has an odor and taste of sulphuretted hydrogen, does that show decomposition?"

We referred this question to a pharmaceutical chemist of wide practical experience, and to a large importer of Hungarian bitter water, and they agree that the presence of sulphuretted hydrogen in such water does not necessarily indicate that it is "spoiled." The importer said that in an experience of fifteen years, during which time he had handled thousands of cases of this water, he had known of less than a dozen instances in which the presence of the objectionable gas was manifest, and in these instances the gas passed away when the stopper was left out of the bottle for a short while.

In a paper read before the Pennsylvania Pharmaceutical Association at its meeting held last June, F. M. Apple told how he had noticed hydrogen sulphide (as he more properly calls the malodorous gas) in samples of mineral water, and how he had got rid of it by emptying the water into an open vessel and then pouring it back and forth from one vessel to another until it was free of the odor. He seemed to think that the water was as good as ever after this treatment.

What Is "Ars. Sol. Pep."?—M. S. B., Alabama, sends us a prescription which reads as follows:

R	Strych. sulph.....	gr. ¾.
	Glycerophos. co.....	3 vj.
	Tr. gent. co.....	3 ij.
	Liq. taka diastase.....	3 ij.
	Ars. sol. pep.....	q. s. ad. 3 x ij.

M.

"I am unable to find out what the last preparation is," writes our querist, and asks our aid.

We should like to have the help of all our readers in this matter. We have sent one guess to M. S. B. and have another in reserve. What do our readers say?

Baking Powder.—W. L. W., Ohio.—Some years ago a United States government expert after examining the baking powders on the market and conducting an elaborate series of experiments of a practical as well as of a theoretical nature, published the conclusion that a baking powder composed of two certain simple ingredients, properly adjusted as to proportion, gave the best results chemically, hygienically and in actual practice. These ingredients and proportions are potassium bitartrate, 2 parts, and sodium bicarbonate, 1 part. For "body" he recommended the use of corn starch, 1 part. In making the powder each ingredient should be dried separately; and the whole should then be thoroughly mixed and kept in well-closed containers.

While there are numerous formulas for baking powders in which all sorts of things in all sorts of proportions are given, the natural inference is that any other proportions of the two active ingredients mentioned would leave an unnecessary quantity of undesirable residue, and that other active ingredients would be useless if they did not prove even harmful.

It has recently been claimed that the addition of dried milk as a part of the body improves the dietetic properties of the products into which the powder enters. The addition of this substance is the subject of one or more letters patent in Europe.

Selling Opium to Chinamen.—"An Old Subscriber," South Dakota, asks: "Is there any law (United States) prohibiting the sale of gum opium in quantities to Chinamen? You will greatly oblige me by giving an authoritative answer, as no one around here seems to be able to do so."

The question was passed along to the treasury department at Washington, and F. M. Halstead, chief of the division of customs of that department, has replied as follows:

In reply to your letter of the 11th instant I have to state that there is no United States law prohibiting the selling of gum opium or any kind of opium to Chinamen.

The act of February 23d, 1887 (24 Stat. 409) prohibits the importation of opium into any of the ports of the United States by any subject of the emperor of China.

The act of February 9th, 1909, prohibits the importation of smoking opium absolutely and the importation of any other forms of opium except for medicinal purposes.

Section 36 of the act of October 1st, 1890 (26 Stat. 620), provides that no person shall engage in the manufacture of opium for smoking purposes who is not a citizen of the United States, and who has not given the bond required by the commissioner of internal revenue.

This seems to cover the point and is authoritative.

Liquid Court Plaster.—A. L. C., Illinois.—We are unable to tell you how the proprietary preparation which you name is made, but may say that many notes on similar articles, with formulas, appear in previous numbers of the CIRCULAR. From one in the issue for September, 1909, page 454, is reproduced the formula below:

Pyroxylin	1 ounce.
Amyl acetate.....	5 ounces.
Acetone	15 ounces.
Balsam of fir.....	2 drams.
Castor oil.....	2 drams.
Oil of cloves.....	15 minims.

Dissolve the pyroxylin in the amyl acetate and the acetone, and add the other ingredients, avoiding fire or light.

Scarlet Red Ointment.—P. P., District of Columbia.—About five years ago, Fischer called the attention of the medical profession to the favorable action of Biebrich scarlet red (amidoazotoluol-azo-betanaphthol) on the growth of epithelium; and, this quality of the substance having been subsequently attested by numerous experimenters, the dye has come into considerable use in the treatment of wounds.

In a note on the therapy of scarlet red in the CIRCULAR for December, 1909, page 635, appears the following quotation from the *Prescriber*:

Scarlet red is used in the form of an ointment, 4 to 8 per cent. in soft paraffin or in a mixture of that base with lanolin. It may also be applied suspended in olive oil, but the ointment is preferable. When applied to ulcers, the ointment may be spread on gauze and covered by a bandage, the skin round the ulcer being covered with zinc ointment to avoid irritation. The gauze should not remain on the wound longer than twenty-four hours, the raw area being delicately cleaned before a fresh application. Should irritation occur, a dressing of boric acid ointment should be substituted for a day, after which a dressing of weaker scarlet red ointment may be applied.

McDonagh (*Lancet*) recommends an ointment made by dissolving 2 parts of scarlet red in chloroform and mixing with 25 parts of petrolatum. This is to be applied every third day, boric acid ointment being used on the intervening days.

In a recent issue of the *Prescriber* appears the following formula for a dusting powder recommended by Pavia (*Therap. der Gegenwart*) for use in instances where the ointment is unsuitable:

Scarlet Red Dusting Powder.

Scarlet red, medicinal..... 1 gramme.
Boric acid in fine powder..... 9 grammes.

The author directs that the wound be carefully dried with cotton; a thin layer of the powder applied by means of an insufflator; and the cavity loosely packed with gauze. The powder is applied at first every day, then at gradually increased intervals. It is reported that the results are more satisfactory than are those following the use of the ointment.

It is important that pharmacists know what this ointment is and how to prepare it; it is equally important that they leave the prescribing and application of it to physicians.

Chlorbutanol and Butyl-Chloral Hydrate.—"Subscriber," New Jersey, wants to be informed what is the "difference between chlorbutano and chlorbutyl." His names, it seems to us, are abbreviated not wisely but too much. As near as we can get at it, what he really wants to know is the difference between chlorbutanol and butyl-chloral hydrate. Modern *Materia Medica* contains the following note on the former:

Chlorbutanol (acetone-chloroform; trichlor-tertiary-butyl alcohol), $C_4H_7OCl_3$, is produced by the reaction of acetone on chloroform. It occurs as small, white, volatile crystals, of camphoraceous odor and taste, and soluble in alcohol, ether, chloroform, or glycerin, and sparingly soluble in water. It is employed as a local anesthetic, anodyne and nerve sedative, also as a preservative of medicamentous solutions. Dose, 5 to 20 grains. As a local anesthetic a concentrated aqueous solution is used. (See chlorotone, methaform [trade-names employed by American manufacturers].)

Butyl-chloral hydrate is fully described in the dispensaries. The respective chemical formulas for the two substances are, chlorbutanol, $C_4H_7OCl_3$ and butyl-chloral hydrate, $C_4H_5Cl_3O.H_2O$.

Beauty Cream. — "Doctor," Michigan. — We have no knowledge of the composition of the cream to which you refer. The purposes for which it is offered are accomplished by any of the further-developed modifications of Galen's cerate. The following formulas from the French of Dourville represent examples of this type:

Glycerin Cream.

Almond oil.....	500 grammes.
Glycerin	75 grammes.
White wax.....	30 grammes.
Marseilles soap.....	15 grammes.
Oil of thyme (perfumer's).....	5 grammes.
Oil of bergamot.....	5 grammes.
Oil of neroli.....	2 grammes.

Dissolve the soap in the glycerin; melt the wax in the almond oil; add the glycerin-soap solution and beat the mixture until a homogeneous cream is produced; then incorporate the perfuming oils.

Pearly Cold Cream.

Almond oil.....	1000 grammes.
White wax.....	60 grammes.
Spermaceti	100 grammes.
Castor oil.....	10 grammes.
Rose water.....	300 grammes.
Oil of bergamot.....	10 grammes.
Oil of rose.....	2 grammes.
Oil of geranium.....	2 grammes.

Melt the wax and the spermaceti over a water-bath; add the almond oil all at once; when the mixture is clear, remove the container from the heat. Add the castor oil; then the rose water, beating thoroughly the while. When cool incorporate the perfume. If desired a trace of methyl violet may be added to improve the tint of the finished product.

Lanolin Cream.

Lanolin	500 grammes.
Almond oil.....	500 grammes.
White wax.....	100 grammes.
Rose water.....	500 grammes.
Vanillin	15 grammes.
Terpineol	10 grammes.

Combine these in a manner similar to that directed for either of the preceding formulas.

Making Shot for Guns.—D. K., New York.—Something more than a formula is necessary in "preparing gun shot" and "hardening the lead." The metal used for ordinary drop shot is an alloy of lead and arsenic, sometimes containing tin. About 3 pounds of crude arsenous acid or yellow arsenic sulphide is the usual proportion to half a ton of soft lead. Coarser varieties of lead require a larger proportion of arsenic up to 16 pounds to the ton. The proper proportion is determined by the appearance of the pellets. If these are lens-shaped, the proportion of arsenic is too great. If they are lop-sided, "cupped," or tear-shaped with more or less of a tail, the alloy contains too little arsenic. Tailed pellets are characteristic of alloys containing too much tin.

To form the shot pellets the molten metal is dropped from cullenders at the top of a shot-tower, usually more than a hundred feet high, into a vat of water at the base of the tower. The height of the tower influences the size of the shot. The cooler the air in the tower the better the grade of shot. Not

only do the harder varieties contain tin, but some of the larger sizes of shot are made from a more complex alloy.

The differences in the various methods of shot-making are matters of alloy, cullender lining, cullender heating, air supply, and finishing mills. The processes are outlined in the encyclopedias; and Ure's Dictionary of Arts, Manufactures and Mines, has an instructive monograph on the subject. Its connection with pharmacy, if it has any, is so slight that we do not feel justified in devoting any more space to the subject here.

Degrees Baumé.—"Subscriber," Virginia, requests that we "explain what is meant by '26° B. at 15° C.' found on the labels of 28 per cent. ammonia water." "B" stands for Baumé and "C" for centigrade. The temperature at which specific gravity is taken is, with chemists, 15° C., the official temperature in most countries. In this country the official temperature for taking specific gravity was changed in the eighth revision of the Pharmacopœia to 25° C., as stated on page liii of that book. An easy and much used method of taking the specific gravity of liquids is by using Baumé's hydrometer. By dropping this instrument into a liquid it sinks to a depth which varies with the weight of the liquid. A scale indicates the depth the instrument sinks, and by a simple computation the figure, or degree, on the scale may be made to show the specific gravity. The following is the rule when the hydrometer for liquids lighter than water is used: Divide 140 by 130 + the degree B. Applying this rule to the present case we

have $\frac{140}{130 + 26}$, the answer being 0.897, which is the specific gravity of stronger ammonia water.

All of which is explained in any work on pharmacy.

Coloring with Cudbear.—J. C. Dills, Drug Clerk, Wisconsin, writes that he has found that when tincture of cudbear is added to any one of a number of preparations, a sickly red color is imparted, unless more of the tincture than is allowable is used. He goes on to say:

This can be gotten around by adding the amount of powdered cudbear that would properly represent the required amount of the tincture to the preparation direct. This is particularly true in "alkaline antiseptic," and compound digestive elixir. Further, regarding these two preparations, I may say that we never use any talcum or other filtering powder in making them, having never found them necessary: after standing a couple of days either will filter through the ordinary filter paper brilliantly clear.

I was interested in Otto Raubenheimer's article on persinon, in the CIRCULAR for September, page 515. I have found that a cudbear color to be of the proper tint and to be stable must be made by using a menstruum as near the finished product as possible, since, the coloring matter (therein called persinon) seems to be very complex. We have made up several cudbear solutions in different mediums and have found that one made with a weak alcohol content will not satisfactorily color a strongly alcoholic liquor, and vice versa.

The latter point seems to be especially valuable, and may be the one whereon hangs the failure of many operators to get uniformly good results from the use of tincture of cudbear. We thank Mr. Dills for his note and invite him to "come again."

"After-Shave."—W. B., Ohio, finds that he cannot get a clear preparation with the following formula, which, the owner declares, represents a mixture that is not cloudy:

Extract of violet.....	1 ounce.
Menthol	40 grains.
Cologne spirit.....	2 pints.
Solution of irish moss enough to make	1 gallon.

Assuming, for the sake of convenience, that solution of irish moss is the equivalent of mucilage of irish moss N. F., and that this preparation has been clarified by filtering through cotton-flannel, we should attribute the cloudiness to two causes: First, the addition of the ordinary extract of violet containing about 70 per cent. of alcohol to a liquid weaker in alcoholic content will result in cloudiness due to the aromatic fatty bodies being thrown out of solution; and, second, any preparation of irish moss containing no other preservative than 25 per cent. of alcohol is quite liable to deteriorate rapidly through fermentation.

To remedy the trouble, we suggest the use of about 1 per cent. each of boric acid and benzoic acid in the water used in preparing the solution (or mucilage) of irish moss, and the use of a perfume adapted to hydro-alcoholic liquids of the nature of the foregoing. Another suggestion: Add the alcoholic liquid slowly and with a minimum of agitation, as air bubbles are difficult to disperse once they have formed. In passing we might remark that we have never seen a gum-containing after-shave lotion that was perfectly clear.

A good formula for one of these useful and popular lotions is given in the CIRCULAR for October, 1910, page 518.

Massage Cream.—S. G., Michigan.—The cream to which you refer is a good example of the casein rolling creams, a typical formula for which appears on page 640 of last month's CIRCULAR. We believe that the best results are obtained with casein freshly prepared by the magnesium-sulphate-and-alum method which was described in detail in an article by Dr. Mary Emma Doyle in the CIRCULAR for June, 1907, page 405.

It is evident that, to secure the appearance of the high-priced finished product of the experienced manufacturer, it is necessary that the manipulator possess considerable special skill, and that the quality of the ingredients is not secondary to the cost.

In the CIRCULAR for January, 1910, several pages were devoted to an article on the manufacture of modern skin creams.

Solution of Artificial Musk.—H. D., Pennsylvania.—It is said that the odor of a solution of artificial musk can be enhanced by the addition of about 5 drops of ammonia water to a pint of the 1 per cent. solution. These solutions are usually made with cologne spirit.

We are inclined to the opinion that much of your trouble is due to a confusion of the several substances known as artificial musk. The best known of these is probably the "musk Baur" to which you refer. This is a nitration product of toluol or xylol. Chemically "musk Baur" has several forms, trinitrobutyltoluol and trinitrobutylxylol being the chief ones. These, it is said, are inferior in odorous value to the

ketone musks, dinitro derivatives of the methyl, butyryl or valeryl ketones of butyltoluol or butylxylol. For perfuming hydro-alcoholic liquids and soaps the artificial musk which is chemically dinitrobutylxylol-bromide is especially mentioned by Dourville. The 1 per cent. alcoholic solution of this substance has but a faint odor, but this is increased by dilution with water. Tonquinol is the trade-name of another variety of artificial musk first manufactured by Valentinér. A British patent covers an artificial musk which is a sulphonation product of several terpenes, oil of eucalyptus and oil of amber.

Sometimes a lack of perfuming strength is an indication that the artificial musk has been sophisticated with acetanilide, such sophistication being a rather common practice.

Bismuth Subnitrate in an Acid Mixture.—"Salol," Rhode Island, submits the following example of troublesome prescriptions:

R	Bis. subnit.....	5j.
	Ess. pepsin, N. F.....	5ij.
	Lloyd's hydrastis.....	5i.
	Aq. menth. pip.....	q.s. ad 5iv.

He complains that the mixture has been returned "on account of the bismuth sticking to the sides of the bottle, no amount of shaking seeming to release it." He says that the addition of glycerin has been of no avail.

The trouble is characteristic of bismuth salts in acid mixtures, and can not be obviated except by changing the medium in which the bismuth is suspended. In the present instance this would mean the omission of the essence of pepsin and the liquid hydrastis, both being acid in reaction—to neutralize them would be to invite greater trouble. It is well to point out to physicians that bismuth salts with acids form cement-like deposits, which can not be obviated even by the use of acacia or other suspending agent. The only solution of the problem of dispensing pepsin in liquid form and bismuth at the same time is to exhibit the bismuth salt separately in powders or cachets; the so-called elixirs of bismuth and pepsin have little if any of the therapeutic value of these two ingredients.

Stainless Iodine Ointment.—W. M. Linnett, Jr., New Jersey, contributes the following note on the aforementioned preparation:

Some time ago in an issue of your paper [July, 1910, page 363] a subscriber asked you for the formula for stainless iodine ointment. This party being in New Jersey, no doubt had reference to a certain stainless iodine ointment made in this State. I myself have wanted a formula for this same ointment, so I set to thinking, and the result was as follows:

I found that making a 5 per cent. ointment of iodine with 5 per cent. of lanum, 15 per cent. of petrox N. F., 10 per cent. of a thick starch paste, and the balance to 100 per cent. (or 70 per cent.) of petrolatum, yellow, gave us just about what we wanted in the line of a stainless iodine ointment.

Mr. Linnett's thinking habit is a good as well as profitable one, and one worthy of the emulation of all pharmaceutical practitioners. His other habit, that of giving his fellow-pharmacists the benefit of his thinking is equally commendable. We find pleasure in acknowledging our gratitude to Mr. Linnett, and feel sure that this acknowledgement finds an echo in the minds of many of our readers.

White Cream Liniment Powder.—C. F. J., Minnesota.—If we were looking for something in powder form "to be added to [oil of] turpentine, etc." we should assume that the "etc." meant at least water and perhaps vinegar and maybe camphor and possibly an egg or two. Then we should powder some animal-oil soap and some ammonium carbonate. Next we should make a saturated solution of sodium hydroxide in alcohol, adding enough of the powdered soap to this solution to make a fairly stiff paste; granulate this paste through a sieve, dry the granules thoroughly, mix them well with the powdered ammonium carbonate, and reduce the batch to powder. Which powder we believe would make something of a cream with "turpentine" and water, and a real custardy cream with the help of an egg or two.

Had we less time for preparation we might satisfy ourselves and the liniment maker with powdered alkaline soap.

Refilling Prescriptions for Morphine or Cocaine.—M. G., New York.—The fifth paragraph of section 238, article 11, chapter 422 of the laws of this State, reads as follows:

Prescriptions of opium, morphine and chloral. No pharmacist, druggist, or other person shall refill more than once, prescriptions containing opium or morphine or preparations of either of them or chloral, in which the dose of opium shall exceed one-quarter of a grain, or of morphine one-twentieth of a grain, or of chloral ten grains, except upon the written order of a physician.

The language of section 1745 of the penal law of this State, popularly known as the "penal code," is as follows:

Regulations as to prescriptions of opium and morphine. A person who, except on the written or verbal order of a physician, refills more than once prescriptions containing opium, morphine or preparations of either, in which the dose of opium exceeds one-fourth grain, or morphine one-twentieth grain, is guilty of a misdemeanor.

In this city there has been no legal restriction upon the refilling of prescriptions containing less than one-twentieth of a grain of morphine to the dose, since section 182 of the sanitary code of the municipal board of health was amended by deleting the words "Any such prescription shall not be refilled."

Section 1746 of the penal law begins with the following statement:

Sale of cocaine or eucaïne. It shall be unlawful for any person to sell, furnish or dispose of alkaloid cocaine or its salts, or alpha or beta eucaïne or their salts or any admixture of cocaine or eucaïne; except upon the written prescription of a duly registered physician, which prescription shall be retained by the person who dispenses the same, shall be filled but once and of which no copy shall be taken by any person. . . .

Further on, this same paragraph is continued in the following language:

Any person who sells, furnishes or disposes of alkaloid cocaine or its salts, or alpha or beta eucaïne or their salts or any admixture of cocaine or eucaïne, upon the written prescription of a duly registered physician, as authorized by this section, shall, at the time of dispensing the same, give to the person to whom the same is sold or furnished a certificate stating the name and address of the person selling or furnishing such drug or mixture, the name and address of the physician upon whose prescription the same is sold or furnished, the date of sale and the amount sold. . . .

Section 182 of the sanitary code of the municipal board of health has nothing whatever to do with prescriptions for cocaine.

The intent of the law is quite clear: No prescrip-

tion for cocaine may legally be refilled, nor can a copy of the written prescription be given to any person. No prescription containing more than one-twentieth of a grain of morphine in each specified dose can legally be refilled more than once.

Your query as to how many repetitions of a cocaine prescription are covered by the certificate given to the presenter of the original prescription is superfluous as there can legally be no repetitions; each written order from the prescriber to refill the original prescription must be treated as an original prescription and calls for a new certificate.

Tooth Wash with Green Soap.—"Hospital," New York.—As a base for your preparation we suggest the following:

Green soap.....	50 grammes.
Glycerin	100 c.c. (mils).
Alcohol U. S. P.....	500 c.c. (mils).
Distilled water, enough to make	1000 c.c. (mils).
Solution of carmine.....	enough to color.

We hesitate to suggest a "more delicate flavor" than the blend of oil of gaultheria, oil of cassia, and oil of peppermint which you mention, because of the influence of the personal equation upon the interpretation of "delicate flavor." For your guidance in experimentation, however, we offer the following which at least have the advantage of being different. (The quantities are not intended to be the proper ones for 1000 c.c. [mils] of the base):

I.	
Oil of spearmint.....	50 grammes.
Oil of star anise.....	30 grammes.
Oil of Ceylon cinnamon.....	2 grammes.
Oil of cloves.....	5 grammes.
Oil of bergamot.....	2 grammes.

II.	
Oil of cloves.....	55 grammes.
Oil of star anise.....	47 grammes.
Oil of spearmint.....	40 grammes.
Oil of citronella.....	8 grammes.

III.	
Oil of spearmint.....	4 grammes.
Oil of cloves.....	1 gramme.
Oil of Russian anise.....	1 gramme.
Oil of Ceylon cinnamon.....	1 gramme.
Oil of rose.....	20 grammes.
Oil of orange.....	2 grammes.

IV.	
Oil of rose.....	1 gramme.
Oil of angelica.....	1 gramme.
Oil of orris.....	3 grammes.
Tincture of vanilla.....	10 grammes.

V.	
Oil of rose.....	6 grammes.
Oil of neroli.....	4 grammes.
Oil of citron.....	2 grammes.
Oil of cinnamon.....	2 grammes.
Oil of cloves.....	2 grammes.
Oil of lavender.....	1 gramme.
Oil of pimento.....	1 gramme.

Physiological Salt Solution.—We have received a note on this subject signed "Druggist, N. Y. C." If our modest friend will favor us with his name and address (for our own guidance only, not necessarily for publication), we shall be glad to consider his communication with a view to its publication.

Preparing Sulphamido-Benzoi Acid.—M. L., New York, writes: "Kindly let me know how to make the substance 'Amid sulphin benzoic Acid,' I mean the amid which is used to produce benzoic sulphin."

By exercising our well-developed guessing faculty we have concluded that our correspondent desires some information anent the production of sulphamido-benzoic acid the parent product of benzosulphinide U. S. P., more commonly known as saccharin. In the British Pharmaceutical Codex saccharin is called gluside, and the manner of preparing it is described as follows:

Gluside, $C_6H_4COSO_2NH_2$, may be prepared by treating toluene with concentrated sulphuric acid at 100° , thus forming ortho- and para-toluenesulphonic acids, $C_6H_4(CH_3)SO_3H_2$. The acids are converted into the calcium salts, and these in turn into sodium salts; the latter, by the action of phosphorus pentachloride, yield a mixture of ortho- and para-toluenesulpho-chlorides, from which, on cooling, the para-salt is got rid of by crystallization. The ortho-compound is then treated with dry ammonia gas, whereby ortho-toluene sulphamide, $C_6H_4(CH_3)SO_2NH_2$, is formed. This is next oxidized with potassium permanganate, and the resulting potassium compound decomposed by means of an acid; orthosulphamido-benzoic acid is thus formed, but splits up into its anhydride, gluside, and water.

In Noyes' Organic Chemistry for the Laboratory, second edition, the preparation of saccharin is described in detail in the paragraph on "The Preparation of Sulphone-chlorides and Sulphonamides by the Use of Chloride of Sulphuric Acid." The subject is treated more or less at length in all recent text-books on organic chemistry.

We are of the opinion that the practicable methods of producing benzosulphinide are covered by letters patent. Should our correspondent be interested, we can inform him of the whereabouts of a manufactory equipped with formulas, processes, and apparatus for the production of benzosulphinide that may be purchased quite reasonably because of the growing opposition to the use of synthetic substitutes for sugar in foodstuffs.

Cleaning Powder.—F. M. C., Pennsylvania.—We do not know the composition of the brand of cleaning powder you mention, and we think the general interest in the matter would not justify us in going to the expense of making an analysis of it, especially as formulas for many cleaning powders are already well known. We call your attention to notes on this subject, with formulas, in the issues of the CIRCULAR for January, page 30; November, 1909, page 589; and March, 1907, page 270. In the issue for April, 1907, page 306, is a note on a cheap cleaning powder free from grease, lime or caustic, sold in the West for 2 or 3 cents a pound. This powder is a sodium sesquicarbonate, known as "snow flake crystals," and is said to be worth twice as much as sal soda for cleaning purposes.

Paste Shoe Dressing.—D. R. P., Pennsylvania.—We are unable to tell you just how any given manufacturer makes his shoe polish, but you may find some formulas for preparations of this kind elsewhere in this number (page 696). Directions for making various kinds of shoe dressings appear in previous issues of the CIRCULAR. We refer you especially to those for March of this year, page 141, and for July, page 366, and September, page 468, both for 1910.

Several Formulas.—Our old friend Scott, of New York, who has favored us on a number of previous occasions, now makes good his reputation for ability to rise to the occasion, by sending the following notes:

Green Color for Show Globes.

In the October CIRCULAR, page 570, there is a request for a green color for show bottles.

One may make a very satisfactory green—pretty and permanent—as follows: Put three or four one-cent coins in the bottom of a graduate, pour on a little nitric acid to cover well and set in the open air to allow the fumes to escape. When solution is effected dilute it with enough water to fill the bottle.

Yellow or Orange Globe Colors.

Solution of potassium dichromate according to its strength makes a good yellow or orange color.

Christmas Specialty.

By the way, Christmas is almost here—just the time for sachet powders. Here are formulas for two powders that are very choice and can be sold at from 25 to 40 cents an ounce, at which prices they afford a "get-rich-quick" profit. They compare most favorably with those costing \$2 or more per pound:

Carnation Sachet Powder.

Oil of cloves.....	2 fl. drs.
Granulated orris root.....	1 lb. av.
Oil of sandalwood.....	10 minims.
Solution of carmine or Tincture of cudbear.....	enough.
Alcohol	½ fl. oz.

Put half the orris root in a mortar and pour on enough of the solution of carmine or tincture of cudbear to give a dark-pink or light-red color, then mix the remaining orris root with it. Dissolve the oils in the alcohol and add to the colored orris root, a little at a time, mixing well after each addition. Set aside in well-stoppered bottles for two or three days. Then spread out on glass to dry spontaneously.

Heliotrope Sachet Powder.

Granulated orris root.....	1 lb. av.
Cumarin	1 dram.
Oil of sandalwood.....	15 minims.
Solution of carmine or Tincture of cudbear.....	enough.
Solution of anilin blue.....	enough.
Alcohol	½ fl. oz.

Color half the orris root a light-pink with the solution of carmine or tincture of cudbear. Color the other half a light-blue. Scent with the cumarin and oil of sandalwood dissolved in alcohol, and finish as directed above.

Other formulas will suggest themselves to those who study these. For instance, to make a violet powder, color one half the orris root dark-red and the other half dark-blue and use a good violet odor; to make a rose powder color as for heliotrope, and use ⅓ to ½ of carnation.

Now and then we receive a letter from a grateful subscriber who says that one formula found in the CIRCULAR has profited him more than the price of several years' subscription. Now, then, here's an opportunity for something of the kind.

Phenol Gangrene.—Dr. J. I. Wallach, New York, having read with interest the notes on this subject which have appeared in recent numbers of the CIRCULAR, is kind enough to contribute this report of a case:

The patient, D. C., a man thirty-four years old, received a superficial wound of the thumb due to injury with a screw driver. He went to a druggist, who applied a 3 per cent. solution of carbolic acid on a closed dressing. Eight days afterward, he came to the hospital for treatment. On admission, there was dry gangrene of the terminal phalanx. An amputation of the thumb was deemed necessary after other methods had failed.

We are pleased to hear from our house surgeon friend, and trust he will favor us again.

To Clean Wedgwood Mortars.—Mason G. Beebe, Vermont, believes in the give-and-take spirit in which we endeavor to conduct this department, so he writes:

In reading Mr. Ford's article in the November CIRCULAR, page 625, the paragraph in which he refers to dirty utensils struck me rather forcibly, as so few druggists give the matter of stained mortars a thought, evidently believing that washing with soap and water is sufficient, but if an analysis could be made it would show some surprising results. The porous nature of the wedgwood composition makes it difficult to clean, and even though there was no possible chance of contamination from it, the fact that a physician frequently sees a man using a mortar that looks as if it belonged in a blacksmith's shop does not cause a favorable impression, to say the least.

It has occurred to me that perhaps such as do not know of it already might appreciate the following inexpensive and simple method of treatment: Take 3 or 4 ounces of potassium dichromate, powder it fine, and add enough sulphuric acid to make a paste. Smear this over the mortar, inside and out, as well as on the pestle head, being careful not to get any of it on the wooden handle, and let it remain for fifteen minutes. After the mortar has stood a suitable time and been rinsed with cold water and then washed with soap and water, it will be as clean and white as when new. The same batch of paste may be used on many mortars.

While the above is not new or startling, a little application once a week or so will be fully as profitable as spending twice that amount of time wondering why business is so poor and why some of the doctors prefer dispensing to sending their prescriptions to the druggist. A little attention to small details of this nature instead of leaving them for the boy to look after is better than a good many dollars spent in useless kinds of advertising, because it is of itself an advertisement of cleanliness.

Suppose one druggist in each State contributed a note of this kind each month, that would be 46 such notes a month, or 552 notes a year—which, in the expressive language of the street, would be going some. We are grateful for each one received.

Stamping Ink.—Seeing the note on this subject in the CIRCULAR for last month, page 641, G. F. Dunbar, Massachusetts, writes:

A very satisfactory stamping ink may be made by grinding anilin colors with very thin colorless varnish, and reducing with oil of turpentine if necessary. I believe there is a concern in Philadelphia which makes a varnish expressly for this purpose.

Mr. Dunbar has our thanks for this manifestation of his spirit of reciprocity, and not only do we hope to hear from him again, but trust that his example may induce others who have good ideas to give them a wider circulation.

Menthol Pencils.—A. P., New York.—To form the menthol into proper shape, melt it and cast it in suitable molds. The menthol should be pure, as the presence of thymol spoils the pencil. When the molds are cold (ice may be used to cool them) the cones are removed and fastened to wooden holders with good glue. A note on this subject appears in the CIRCULAR for May, page 268.

Reciprocity between Boards of Pharmacy.—D. J., Texas.—In the CIRCULAR for January, page 31, is an extended note on this subject, to which reference has been made in this department at least twice—once in the CIRCULAR for March, page 138, and again in the issue for May, page 261. According to that note the boards of the following States (etc.), practice reciprocity with each other, with certain restrictions: Alabama, Arizona, Arkansas, Connecticut, District

of Columbia, Florida, Georgia, Idaho, Indiana, Kentucky, Louisiana, Maryland, Massachusetts, Michigan, Nevada, North Dakota, Ohio, Oklahoma, Oregon, South Dakota, Texas, Vermont, Virginia and West Virginia. The restrictions alluded to may be learned by writing to the secretary of the board of the State in which the candidate desires to become registered. The name and address of the secretary of each board of pharmacy in the United States appears in the CIRCULAR monthly.

To Prevent Waste at the Bung.—C. T. Heseltine, Maine, writes:

To pour liquids from the bungholes of barrels and kegs without spilling: use the wooden pieces that are supplied at each end of a roll of paper.

Little practical notes of this kind are always timely and welcome. In thanking Friend Heseltine for this one we take the occasion to solicit others.

Anonymous Queries.—"Alkaline Powder," New Jersey; "Ink Remover," Illinois.—Your attention is called to the standing notice at the head of this department in which it is stated that queries, to be answered by us, must be accompanied by the name and address of the writer. Not only do we keep that notice standing, but every once in a while we print a note similar to this one, calling special attention to it; and now and then we give our reasons for having made such a rule.

Appeals to Readers.—Information is sought concerning the articles listed below. We ask for such help as our readers can give:

Universal Balm.—G. F. D., Massachusetts.

Mucol.—L. Y. L., Maine.

Tarola.—R. M. G., Maryland.

Atwood's Bitters.—M. B., New Jersey.

Browning Brass.

To produce a brown finish on brass, says *Metal Industry*, the surface is first sand-blasted, then washed thoroughly with a potassium cyanide dip, and rinsed with clear cold water. The article is then immersed in the following solution:

Potassium "sulphuret".....	2 ounces.
Barium "sulphuret".....	4 ounces.
Ammonia water.....	8 ounces.
Water	25 gallons.

As soon as the entire surface of the article presents a uniform gray appearance, the article should be transferred to the following solution:

Sulphuric acid.....	1 gallon.
Water	25 gallons.

When the color is of the required shade, the article is rinsed thoroughly in cold water then in hot water, dried in heated sawdust, brush polished, and lacquered with a satin-finish lacquer.

Witchhazel Glycerin Jelly.

Gelatin	1 ounce.
Glycerin	3 ounces.
Witchhazel water.....	20 ounces.

Mix, heat over a water bath, and add a perfume if desired.

Georgia Board Questions.

Herewith are reprinted the questions used by the Georgia Board of Pharmacy at an examination held November 6th, 1911. Other sets of questions asked by this board appear in the issues of the CIRCULAR for August, 1909, page 411; July, 1907, page 481; February, 1906, page 60; January, 1904, page 125; and December, 1901, page 251.

In reprinting board questions we endeavor to follow closely the nomenclature, spelling, punctuation and capitalization of the originals, our object being to give our readers, just as nearly as practicable, the questions as they were presented to the candidates.

Pharmacy.

C. D. Jordan, Examiner.

1. (a) What is Lactic Acid? (b) What pharmaceutical preparation is made from Lactic Acid?
2. (a) Name an official aldehyde produced artificially? (b) Mention other sources?
3. (a) What is Cineol—its official Latin title? (b) Into what official preparation does it enter?
4. (a) What is milk of lime? (b) Milk of Magnesia? (c) Milk of Assafoetida? (d) Milk of Sulphur?
5. What are four pharmacopoeial substances that may be called products of destructive distillation?
6. Why is glycerine employed in the manufacture of extracts?
7. Why does the U. S. P. direct the use of heat in the official process for making Tr. Kino?
8. What is the object of "wetting" a filter made of paper or cloth before beginning filtration?
9. (a) What is Donovan's Solution? (b) Is it a simple or chemical solution?
10. What oil is the least volatile of the official essential oils?

Chemistry.

R. H. Land, Jr., Examiner.

1. What do you mean by Latent Heat?
2. Define the following terms—Element, Anhydrous, Deliquescent, Efflorescent?
3. What is the difference between Analytical and Synthetic Chemistry?
4. (a) Define a Salt? (b) What is the difference between a Normal Salt and an Acid Salt?
5. What is the difference between Washed Sulphur and Precipitated Sulphur?
6. In making Seidlitz Powders, name chemicals used and state what chemical change takes place when they are mixed with water?
7. Complete the following equations: (a) $\text{FeSO}_4 + \text{K}_2\text{CO}_3 =$ (b) $\text{CaO} + \text{H}_2\text{O} =$
8. Give a chemical test for Sugar and Albumen?
9. Give a chemical Antidote for the following: (a) Nitrate Silver. (b) Oxalic Acid. (c) Caustic Potash. (d) Corrosive Sublimate.
10. (a) What is the official name of Solution Hydrogen Dioxide? (b) How is it usually prepared? (c) What per cent. of hydrogen dioxide does it contain?

Materia Medica.

S. E. Bayne, Examiner.

1. State in your own words the meaning of Materia Medica. (a) Give an example and state for what it is used.
2. What are synonyms? (a) Give name of one drug, with its synonym, and dose.
3. Give official title of Gelatin. (a) Its source and medicinal use.
4. Mention one official Glucoside. (a) From what obtained, dose and use?
5. There are two official Soaps: Write the Latin names of them. (a) Composition of each.
6. Describe Opium. (a) Name ten official preparations. (b) (What would be your price on a prescription for one pound of Gum Opium? This is a commercial question, and will not be given any rating.)
7. What official Infusion is made by cold process? (a) Why is it not made with boiling water? (b) What part of the plant is used?
8. What do you understand to be the principle of

"Serum Therapy," or Serum Therapeutics? (a) Average dose of the official Serum.

9. Give common name for Serum. (a) What is the source of "Neatsfoot Oil?" (b) Give English for Sanguis; Lac; Os.

10. Give common name for Colocynth. Medical properties of Sanguinaria. Constituents of Jaborandi. Dose of Senna.

Prescriptions and Doses.

Herman C. Shuptrine, Examiner.

1. Write a prescription, giving correct dose of strychnine for adults, containing a physiological incompatibility.
2. What would you do to make a solution of zinc chloride a pharmaceutical preparation?
3. Give the Official Titles of the following: (a) Lead Plaster. (b) Lanoline.
4. What strength is Infusion of Digitalis, and what are its therapeutic properties?
5. Give the doses of the following: (a) Caulophyllum; (b) Aqua Ammonia; (c) Fluid Extract Colchicum Seed; (d) Tinct. Rhatamy.
6. How much Menstruum would you add to five ounces of a 40% Tinct. in order to reduce its strength to 10%?
7. How many cubic centimeters in 1,000 gms. of Ether (sp. .716)?
8. Criticise the following:

R Potass. Iodide.....	3iij
Fluid extract Ipecac.....	m.xx
Ammon. Carb.....	3ii
Elix. Simp.....	q.s. 3iv
- M. Sig. Teaspoonful.
9. Write formula, using metric system, for a hundred pills, each pill containing

Aloin	1-4 gr.
Strychnine	1-60 gr.
Ext. Belladon.....	1-8
Ipecac	1-16
10. What sort of menstruum should be employed in mixtures containing Rhubarb?

Oklahoma Board Questions.

Herewith are reprinted the questions used by the Oklahoma Board of Pharmacy at an examination held October 2d, 1911. Another set of questions asked by the Oklahoma board appears in the issue of the CIRCULAR for January, 1905, page 22.

In reprinting board questions we endeavor to follow closely the nomenclature, spelling, punctuation and capitalization of the originals, our object being to give our readers, just as nearly as practicable, the questions as they were presented to the candidates.

Pharmacy.

John D. Humphrey, Examiner.

1. What are ten [10] Alkaloids recognized by the Pharmacopœia?
2. (a) Is Nux Vomica a fruit or seed? (b) What two (2) Alkaloids are obtained from it?
3. What would be the precipitate if a solution of Corrosive Sublimate be added to Lime Water?
4. What are two [2] fluid extracts and two [2] tinctures which the Pharmacopœia requires shall be assayed?
5. What official tinctures are made from animal drugs?
6. (a) Give the official Latin name for this mixture?

R Ferri Sulphat.....	3.00
Myrrhae	9.00
Sacchari	9.00
Potass. Carbonat.....	4.00
Spts. Lavendula.....	30.00 cc
Aquae Rosae.....	qs. ad. 500.00 cc
- Misc.
 - (b) How much of each of the ingredients is required for 300.00 cc?
 7. (a) In what form is Silver usually found? (b) What is its most important salt?
 8. (a) What three drugs are used solely as bitter tonics? (b) Name three drugs that are emmenagogue? (c) What two (2) drugs are used chiefly as anthelmintics? (d) What two [2] drugs are used chiefly as a taenifuge?

(e) Name two[2] drugs that are irritant; one a leaf drug and one a bark drug?

9. Criticise the following prescriptions:

(a) $\mathcal{R}$ Strychnia Sulphitis..... grs. iii.
Quininae Sulphitis..... grs. xx.
Excipients qs.
Misc. ft. Pilul. No. xv
Sig. One Tid.

(b) $\mathcal{R}$ Tr. Ferri acetatis..... ss oz.
Tr. Valerianae..... ii oz.
Spiritus Ammon. Aro..... ss oz.
Suripi i oz.
Aquae q. s. ad. iv oz.
Misc. Sig; One teaspoonful every four hours.

10. (a) What alkaloid is found in ipecac root? (b) What action have alkaloids on litmus paper? (c) What acid is obtained from oil wintergreen? (d) What is the difference between oil of nutmeg and oil of mace? (e) Name two drugs of which the unexpanded flower is the part used.

Chemistry.

1. Define (a) Chemical Symbols. (b) Formula. (c) Element. (d) Acid. (e) Base.
2. Define (a) Atom. (b) Compound. (c) Molecule. (d) Amorphous. (e) Molecular. Weight.
3. Name (a) ten elements giving their symbols. (b) ten compounds by their formulae.
4. What salt is formed when the fumes of hydrochloric acid comes in contact with ammonia gas?
5. If iron wire is dissolved in dilute sulphuric acid what salt of iron is formed. What gas is disengaged? What is Sulphide of Iron?
6. What is the chemical composition of (a) Allum. (b) in what does it differ from allum exsiccatum?
7. What is the source of Ammonia? What effect has heat on salts of ammonia? What liquid preparations are official, and state strength of three of them.
8. Mercury—give (a) Source. (b) Symbol. (c) Formula of Calomel. (d) Formula of Corrosive sublimate. Give points of physical difference between calomel and corrosive sublimate with a distinguishing chemical test.
9. Phenol—(a) what is its ordinary source. (b) in what two principal shapes does it reach the pharmacist. (c) mention two antidotes.
10. What chemical antidotes are effective and should be used in case of poisoning by (a) Oxelates. (b) Morphine. (c) Chloral.

Materia Medica.

L. D. Brunk, Jr., Examiner.

1. (a) Define Materia Medica. (b) Therapeutics. (c) Chologogue. (d) Diaphoretic. (e) Alteratives.
2. What are six official Mucilaginous Substances?
3. (a) What are Astringents? (b) What are four official Mineral Astringents? (c) What are four official Vegetable Astringents?
4. (a) What official leaves of the Natural order Solonaceae yield Mydratic Alkaloids? (b) What are three official oils derived from the Botanical Family Coniferae?
5. (a) What is Black Lead? (a) Crocus Martis? (c) Kermes Mineral? (d) Turpeth Mineral?
6. (a) What is the difference between Glucose and Grape Sugar? (b) What are the official Sugars and from what source are they derived?
7. (a) What U. S. P. Tincture contains the largest amount of Alcohol? (b) The smallest?
8. (a) What official pills are directed to be coated? (b) What official pills are made by process, which involve a chemical reaction?
9. (a) What are four official drugs from plants described as Herbs, Shrubs, Trees. (b) What characteristic is common to a large number of the plants which belong to the Solonaceae?
10. (a) What are three physiological incompatibles with Atopine? (b) Chloral? (a) Solution of Hydrogen Peroxide?

Practical Work and Dispensing.

1. Describe the general process of making pills. How would you make 1 doz. pills containing 2 grs. of Quinine and $\frac{1}{2}$ gr. Berberine each and what would be your price for such a prescription?
2. Describe the general process of making Tinctures and tell how you would make 8 oz. Tincture of Opium. What would be its cost and selling price per ounce?

3. Describe the general process for making Syrups and tell how you would make 8 oz. Syrup of Wild Cherry.

4. Describe general process for making Elixers and tell how you would make 8 oz. Elixer of Iron Quinine and Strychnine.

5. What is an Emulsion? Tell how you would make the official Emulsion of Cod Liver Oil.

6. What is the difference between an Ointment and a Cerate? Describe the official method of making each.

7. Give the equivalent for each of the following in the metric system of weight: 1 dram, 2 ozs., 1 pound. Also the same in fluid measure, 1 dram, 2 ozs., 1 pint.

8. If a tincture is 10% in strength of the drug how much of the drug in 8 ozs. of the tincture? Put all your figures on the paper.

9. How would you prepare a 4% solution of Cocaine? How much of the drug will there be in a one ounce preparation? Put your figures all on the paper. What would be your price for such a prescription?

10. What are Suppositories? Tell how you would make 12 Rectal Suppositories containing one per cent. of Opium, and the price.

Evils of Commercialized Pharmacy.

In a paper read at the recent meeting of the Tennessee Pharmaceutical Association, J. O. Burge said that "pharmacy is, and must necessarily continue, more or less, at least for a good many years to come, to be a double calling; it has its professional and commercial side, and it will be hard to separate the two." The under growth of the unduly "commercial" side of the calling of the pharmacist he deprecated. He gave this version of its beginning and growth:

Twenty-five years ago, or thirty, perhaps, cut prices on "patent" medicines as an advertising scheme began to be popular with a certain class of druggists, and a few made money at it. About that time a class of persons entered the ranks of pharmacy. They had some money, and the reputed "400 per cent." in the drug business sounded good to them. They knew nothing about pharmacy; there were no restrictions or requirements in many of the States prohibiting their entering the drug business. They saw the chance to "get rich quick," bought a stock of drugs, hired a cheap clerk with some little experience at the business, opened a drug store, and became druggists, not pharmacists. They bought all their supplies, not knowing how, or not having time, as many of them expressed it, to make their preparations. This caused a good many cheap manufacturing houses to open up, who made and sold pharmaceuticals cheaper than a good article of crude drugs could be bought for. This bait led a good many lazy pharmacists to buy, who were really competent to make their own preparations, but they could buy them cheaper than they could make them. Then the custom of making tinctures from fluidextracts came into vogue, and was at once taken up by the lazy pharmacists and incompetent druggists, who had no trouble in making this class of preparations, as the formula was on the bottle. The sale of "patent" medicines without any profit began to worry the commercial druggist when the "just as good" non-secret man came along with good formulas on the label and cheap medicines in the bottle. These formulas were unworkable for the honest pharmacist, who could not take them and make the preparation put up by the "just as good" maker. Thus began what is now known as "commercial pharmacy."

This "cheap John" pharmacy, said Mr. Burge, led to the introduction in congress of several pure food and drug bills, which, after about twenty years resulted in the passage of the celebrated pure food and drugs law of June 30th, 1906. It also has led to a threatened breach between pharmacists and physicians, continued the author of the paper, who argued that the remedy for the bad conditions noted was for pharmacists to join their local, State and national associations and work together for true pharmacy. He saw improvement and thought pharmacy would soon return to its own.

Correspondence.

Short, timely articles upon subjects of interest to pharmacists are solicited for this department. In order to be in time for publication in the issue of a given month, they should be in the editor's hands on the fifteenth day of the month previous. Anonymous communications will not be published; but if the author expresses a wish to have his name withheld, this wish will be scrupulously regarded and his letter considered confidential.

Deprecates the Cheapening of Pharmacy.

To the Editor of THE DRUGGISTS CIRCULAR:

Some years ago, while a student at the Philadelphia College of Pharmacy, I had published in the college paper an article dealing with some defects of the college course, from a student's point of view. My early education had been gained in an institution that prepares for entrance to the best of our universities; and hence all our students received the most thorough training. Naturally I was well informed as to the entrance requirements of the big colleges. I knew considerable of their courses of study, their hours of lecture and quiz attendance, and the number of years embraced in their collegiate course.

Catalogues of numerous pharmaceutical colleges were often received at the store. My first reading of them taught me two things: First, that it was very easy to enter such a college, and, second, that it did not take more than two or three years to complete the course, and even then one was required to go only every other day.

Being familiar with the average four-year courses in the regular colleges and knowing that attendance at lectures was not confined to three days of the week, I thought at once that it must be easy to become a pharmacist and that there could not be much honor in passing through a college of pharmacy. It looked to me as if the colleges of pharmacy were catering to that class of men who could never have entered a university, let alone complete its course, and that they were making it just as easy as possible, intellectually and financially, for them to become pharmacists.

Nothing so cheapens anything as to make it easy to get. It is ridiculous to hold sessions every other day. If it is done that the student may earn his tuition while attending school, then how is it that it is not the universal custom for all colleges so to regulate their courses for the benefit of impecunious students? Boys who really want such an education will find a way to work and earn their money. If the three-days-a-week custom holds in order that the student may have practical experience, I think it can be shown that there is little ground for that argument. In the first place, the student has the entire vacation period to put into practice the knowledge he may have gained. The colleges have a right to broaden their practical laboratory work. It is much better that the student by constant practice in the laboratory learn the *correct* methods of manipulation, than that he acquire the habits of a preceptor which, too often, are careless and incorrect.

The colleges are presumed to set the example for pharmaceutical ethics. A student who for four days in the week works in the atmosphere of substitutions, recommending "patent" medicines, and sales of various goods of doubtful character, is very apt to reflect the personality of his preceptor and become one of that class of pharmacists without whom we could

well do. Perhaps no other profession offers such easy methods for doing dishonest things with such infinitesimal chances of being detected as does our profession. Students of pharmacy, more than any other body of men, need constantly to be taught the ethics of their business. I believe that to be a most important point.

We do not find it customary for other technical schools to have every-other-day sessions; though their aim, too, is the training of their students for eventual practical work. They devote more time to laboratory work under skilled instructors, and a student, during vacation, is at liberty to put into practice the knowledge he has gained.

There is no reason why the pharmacist, whose work is to assist in the preservation of human life, should not be as well trained as are the students in our best technical institutes. To say that the subject of pharmacy does not demand such thorough education is to belittle and cheapen it. We ought not to be satisfied except with the best. Pharmacists ought to be second to none in their educational attainments. They ought to rank with the brightest professionals. Every pharmacist ought to be a graduate of a college of pharmacy. The entrance requirements to that college ought to be as exacting as those of the best of our technical schools. Sessions should be held six days of the week, beginning in October and ending in June. The course should be four years long. Then the doctor's degree in *pharmacy* would mean something. Is there any argument why the standard should be lower? The benefits are self evident. I need not make them a part of this contribution. I do believe that every prospective pharmacist should be required to be a college graduate before he is permitted to take the board examination. But that college education ought to be such as I have outlined it.

As "patent" and proprietary medicine houses are engaged more or less in the practice of pharmacy in that they compound medicines for the presumed purpose of alleviating human suffering, it is but just that the managers of such houses be subject to the same requirements as those to which the retail druggist must submit. It would only be fair to pharmacy that the law should plainly state that every man or company of men owning or conducting either a retail or wholesale drug business, or large manufacturers of pharmaceuticals, or proprietary, or "patent" medicines, should be subject to the same license requirement as that which applies to the prescription clerk.

These suggestions are respectfully submitted to the careful thought of your readers. E. D. Cook.

[That Mr. Cook is right is the belief of many who have already bestowed much careful thought on the subject; that his tenets are several years ahead of his time is also believed by a large number. The question arises: If drug stores keep on depending more and more on side-line merchandising for their existence, and the profession of pharmacy is intrinsically raised higher and higher by such means as Mr. Cook and others propose, will there not necessarily follow a divorcement of the purely commercial and the purely professional ends of the vocation. In some of the other countries the two are now separate and it is by no means positively settled that either would suffer if they were put asunder in this. But they probably will not be during the lifetime of the present generation.—Editor THE DRUGGISTS CIRCULAR.]

An Ex-Drug Clerk Happy Because He Is an Ex.

Fayetteville, Ark., October 21st, 1911.

To the Editor of THE DRUGGISTS CIRCULAR:

For eleven years I was a drug clerk and during that time I worked up from bottle washer to manager of a \$10,000 business. The largest salary I ever received was \$65 per month, and that was all the business could pay me—I know, for I kept the books.

My good wife (who, as well as I, is also a graduate of pharmacy) and I would often plan, after my return from the store at night, how we could make one dollar do the work of two, and save enough money to go into the drug business. It took all the \$65 to pay the grocery and incidental bills and buy the clothes for ourselves and two children. The drug business was overdone in our town (Stephenville, Texas), and I could see no future for me there, so decided to make a change.

After getting the Arkansas "fever" I obtained a position as traveling salesman for a box and label house on a commission basis, with headquarters at Fayetteville—a beautiful mountain city in which is located the State University of Arkansas, in which I hope to educate my children.

After securing a successor for my position who was satisfactory to the owners, I packed my household belongings and moved 500 miles, but before doing so had to go to the bank and borrow money with which to move. I mention these personal matters only to let you know that my condition was desperate and a change necessary.

Since taking up the work as a traveling salesman I have made more money than I ever made while clerking; have just completed a four weeks' trip during which I made \$256.80 above my expenses—that, however, was somewhat more than my average since going "on the road." I have yet to learn of anyone being more thoroughly satisfied with his occupation than is the writer at this time, and after eleven months of continual satisfaction I feel that I have passed the experimental stage and will never again clerk in a drug store.

While clerking I could, as a rule, sell a customer the most profitable class of merchandise: the same salesmanship now enables me to sell to the druggist and make more money than I could expect as a retail clerk.

I have thought that you might not care to publish this letter for fear that it might make some drug clerk more dissatisfied, but for the benefit of clerks I will state that there is another side—the separation from one's family (which is the hardest dose for me to swallow), the keen competition, and the necessity for possessing ability as a salesman. If a clerk can make a customer apologize for asking him to unwrap an article which she herself has selected, in order that she may exchange it for a more expensive one which he has suggested, then he may make a success as a traveling salesman.

No, Mr. Editor, I shall never be a "drug clerk" again.

H. M. VAUGHAN.

[Other interesting communications from Mr. Vaughan on the drug-clerk question appear in the issues of the CIRCULAR for May and December, 1905, pages 159 and 441, respectively. We congratulate him upon having got out of a harness which evidently

galled him severely and into a business for which he seems to be better fitted and in which his talent is more munificently rewarded.—Editor THE DRUGGISTS CIRCULAR.]

Saving Time at A. Ph. A. Meetings.

CHICAGO, November 8th, 1911.

To the Editor of THE DRUGGISTS CIRCULAR:

Referring again to the waste of time at meetings of the American Pharmaceutical Association: Inasmuch as time is a valuable asset of our members—and time wasted is not only a dead loss but a dead weight—I would like to inquire what was done with the Kremers motion for the appointment of a committee to devise ways and means to cut out this horrible waste. Each day lost at a convention costs each member about \$5; if 500 are in attendance this means a loss of \$2500 to the association.

Could not that committee be obliged to do some trimming on the program so as to do away with the nightmare part of the meetings—the unbearable, unspeakable, unnecessary, unwelcome rot that "don't do nobody no good nohow" and takes up time? Surely all the members do not have so much money—or its equivalent, time—that it has to be spent any old way.

WILHELM BODEMANN.

[This communication is respectfully referred to Local Secretary Scholtz, of Denver; and Charles M. Ford is hereby appointed a committee of one to see that Mr. Scholtz reads, marks, learns and inwardly digests it. In the same connection Mr. Ford might call the attention of the local secretary to Mr. Bode-mann's previous communication on the subject, in the CIRCULAR for October, page 578, and to an editorial reference to it in the issue for September, page 460.—Editor THE DRUGGISTS CIRCULAR.]

Sunday Opening.

TRENTON, N. J., October 22d, 1911.

To the Editor of THE DRUGGISTS CIRCULAR:

Since 1871 I have been a reader of THE DRUGGISTS CIRCULAR, advertisements, letters and all, and have learned something from each issue. I have spent more hours in a drug store during that time than most men of my age, yet I have not lost my love of God, I have not filled an early grave, I have neither pity nor contempt for myself, and I enjoy nature's beauties with an enthusiasm that grows with the years, and appreciate the things that are true and pure and beautiful more than ever.

As I write, the nearby chimes of a church are ringing out a beautiful hymn that fills my soul with delight. But the lure of the Sabbath to-day is not the church. The crowded street cars rush by, the long trains of steam passenger cars traveling with lightning speed throughout the length and breadth of the land, the countless automobiles, distilling oil and gasoline, the motor-cyclists, bicyclists and pedestrians, all on pleasure bent, the people crowding into the candy stores and cigar stores, are not hunting for nature's beauties, are not eagerly looking for a place to worship God.

This waste of gray matter is the result of reading "Sunday Rest's" letter dated July 20th (July 20th fell on Thursday, in New Jersey). He says the hours

came and went very quickly on that sad day. Mr. Editor, the hours do not fly when we are miserable.

There are many stores, in my judgment, that could afford to close Sundays and evenings, and make just as much money, if they would dispense with a clerk. Sunday is such a hardship and drags its slow length along because we have too much time to stand around and do nothing through the week.

Ours is not a profession, it is a business, pure and simple, and the sooner we realize that the sooner we will be able to close Sundays. If we could only get some of George B. Evans' brains into our noddles how much shorter our hours would be, and how much fatter our pocket-books would look.

There are too many of us in business with too small a capacity for business. Let those of us who feel that we are downtrodden get out and try something else. The world is large, and if we hunt around no doubt we can all find soft snaps. At least, let us quit complaining and live in the sunshine of the thought that, though our hours may be longer than those of the man who wields the shovel and the hoe, yet we toil not, neither do we spin, but we all seem to live pretty comfortably, in spite of our discomforts.

DANIEL LANNING COOK.

Photographic Notes.

The appended notes may prove valuable bonds of usefulness between druggists who handle photographic supplies and their customers who are always glad to receive suggestions of the sort.

FRACTIONAL DEVELOPER.

In fractional development the exposed plate is first treated with the reducer and then with the alkali. At a recent meeting of the section on photography and microscopy of the Franklin Institute, G. Dietz suggested the following formula for fractional use:

Reducer.

Edinol	2 drams.
Hydroquinone	2 drams.
Sodium sulphite, dry.....	2 ounces.
Distilled water.....	30 ounces.

Alkali.

Sodium carbonate, dry.....	2 ounces.
Distilled water.....	30 ounces.

Mr. Dietz said that the best results were obtained by having the baths at a temperature of 65° to 70° F.

DRYING NEGATIVES RAPIDLY.

Schleider (*Photos and Focus*) says that he is enabled to dry negatives in about five minutes, at a heat as high as can be borne by the hand, by fixing them with a bath made as follows:

Sodium hyposulphite.....	4 ounces.
Potassium metabisulphite.....	150 grains.
Chrome alum.....	150 grains.
Water	20 ounces.

GLYCIN TANK DEVELOPER.

The *Photo-Era* gives the following:

Glycin	1 ounce.
Sodium sulphite, dry.....	1 ounce.
Sodium carbonate, dry.....	4 ounces.
Distilled water.....	120 ounces.

For use, this is diluted, 1 to 10, with distilled water. The developing is carried on for 20 minutes at 70° or

30 minutes at 60°. The plates must be washed thoroughly before being fixed.

SULPHIDE TONING BATH.

Namias (*Photog. Mittheil.* through *Amat. Photog.*) says that barium sulphide has many advantages over sodium sulphide for sulphide toning, chiefly because its solutions do not decompose or have a strong hydrogen sulphide odor. The author recommends the use of a saturated solution. Rapid toning is a feature of the use of the barium salt.

DEVELOPER FOR UNDEREXPOSURE.

In Photography of Moving Objects the author suggests the following developer for undertimed exposures:

Stock Solution.

Potassium metabisulphite.....	2 drams.
Sodium carbonate, dry.....	1 ounce.
Sodium sulphite, dry.....	1 ounce.
Water	20 ounces.

For use, 6 drams of this solution are mixed with 18 drams of water, and 3 grains of pyrogallol are dissolved in the mixture. The bath is used at 65° F., the tray being rocked constantly until reduction ceases. If the negative is too thin, it is immediately redeveloped in the following:

Stock solution.....	1 ounce.
Pyrogallol	5 grains.
Water	2 ounces.

Surgeon-General Favors Advancement for Army Pharmacists.

In the annual report of Surgeon-General G. H. Torney, of the United States army to the secretary of war, covering the fiscal year ended June 30th, 1911, the surgeon-general opines and recommends as follows relative to the hospital corps:

... In my opinion there is urgent need for the readjustment of the rank of the noncommissioned officers and for an increase in pay for both the noncommissioned officers and privates of the hospital corps. There is no question but that service in the hospital corps is not as attractive since the pay bill of 1898, as it was before. This bill made service for the enlisted men in the line and other staff departments much more attractive than it had been previously, while it did not increase the pay of the privates, first-class, and privates of the hospital corps, and gave only a small increase for noncommissioned officers as compared with other noncommissioned officers of the army. It is a well-known fact that promotion is much easier to obtain in the line of the Army than it is in the hospital corps, where advancement is only secured by passing a rigid examination. In addition to this there are many ways in the line of the army by which a man who is attentive to duty can increase his monthly pay from \$2 to \$9 per month. There is not the same opportunity for advancement for a hospital corps man in time of war, which is a matter to be considered as seriously influencing ambitious and intelligent men who may be thinking of enlisting. It should also be considered that the duties of members of the hospital corps are not particularly attractive to the great mass of enlisted men. The present organization of the hospital corps does not give advanced promotion for particularly worthy and deserving noncommissioned officers as provided for in other branches of the service and in the navy. It is urgently recommended that the grade of sergeant major be established for the hospital corps with the flat pay of \$75 per month and the usual increase for service, as is now allowed the sergeants, first-class. This could be done without adding to the expense of the hospital corps by reducing the number of sergeants, first-class, to 250 and allowing 30 sergeant majors with the pay above mentioned. The number of senior noncommissioned officers can be reduced to 280 in view of the number of posts that have been abandoned since congress allowed 300 sergeants, first-class. Without considering the advisability of an advanced grade for worthy noncommissioned officers there is a demand on the score of efficiency for this grade in our general hospitals, brigade posts, ambulance companies and field hospitals where sergeants, first-class, are assigned in the same command.

I therefore recommend that the number of men allowed the hospital corps be increased to 4,000; that action be taken to increase the pay of the members of the hospital corps, and that the organization be as follows: Sergeant majors, 30, at \$75 per month; sergeants, first-class, 250, at \$65 per month; sergeants, 400, at \$36 per month; corporals, 120, at \$24 per month; privates, first-class, 2,400, at \$21 per month; and privates, 800, at \$16 per month.

Some Analytical Results from North Dakota.

The October issue of the *Special Bulletin* of the food department of the North Dakota Agricultural Experiment Station contains reports of analyses of several cosmetics and medical nostrums, from which the following excerpts are taken:

Calypoline Auxiligator.

"Our analysis showed this product to contain synthetic lilac, known chemically as terpineol. Methyl alcohol was present to the extent of 57.6 per cent., while the total solids was 0.33 per cent."

Epp-o-tone.

"The analysis reported by Prof. Putt for this product is as follows:

"Technically it is in appearance a granular powder, unevenly colored pink.

"Anhydrous magnesium sulphate.... 49.1 per cent.
Water 50.8 per cent.
Color Cochineal.
Contents 4 ounces.

Eudora.

"... was labeled 'A Compound for the Hair,' and as containing 96 per cent. of methyl alcohol. . . . Our analysis of the product showed it to contain 96 per cent. of [methyl] alcohol, as claimed. The residue after evaporation was found to be composed of volatile oils and odoriferous principles which gave the characteristic odor."

May-a-tone.

"Our analysis of this product shows as follows:

"Magnesium, sulphate..... 45.9 per cent.
Borax 4.0 per cent.
Water 49.9 per cent.
Undetermined 0.2 per cent.

"The product is colored with cudbear and slightly perfumed."

Tincture of Iodine.

In the same *Bulletin* are reported the results of the analyses of 127 samples of tincture of iodine collected during the past year. Of these, but 26 are reported to have varied in iodine content not more than 1 per cent. from the official requirement; 66 were below standard; and 35 contained more than the required amount. The weakest sample contained 18 per cent. of the official proportion of iodine; the strongest had 79 per cent. too much. There were but four samples which did not contain potassium iodide.

Analytical Results in Indiana.

In its report of drug analyses made during July and August, the Indiana Board of Health announces that sophistication was found in all the samples of tincture of opium and cocaine hydrochloride; in 57.1 per cent. of the extract of lemon; in 21.4 per cent. of the extract of vanilla; in 37.5 per cent. of the linseed oil; in 43.7 per cent. of the solution of hydrogen dioxide; in 62.5 per cent. of the spirit of camphor; and in 50 per cent. of the spirit of peppermint.

The report says that all the samples of alum, olive oil, quinine sulphate, sulphur, and "simple" syrup answered the official requirements.

Drug Investigation in Massachusetts.

In the September *Bulletin* of the Massachusetts Board of Health it is stated that the board has declared unsalable, for the reasons noted, the following preparations:

Macdonald's astringent hair tonic for dandruff and hair loss, manufactured by Macdonald Toilet Specialty Company, Detroit, New York, and Toronto: "No statement of the percentage of alcohol."

Milk cordial-panna cream, a health tonic, prepared by Prof. Antonio Alai, Suterville, Pa.: "Incorrect statement of the amount of alcohol."

The following sophistications are reported also:

Camphor liniment.—Brockton Cut Price Drug Store, Brockton and Taunton: "53.5 per cent. U. S. P. strength"; South End Pharmacy, Boston: "80 per cent. U. S. P. strength"; Roma Pharmacy, Boston: "83 per cent. U. S. P. strength."

Lemon extract.—F. P. Adams & Co., Boston: "0.1 per cent. lemon oil present. Labeled 1½ per cent. oil."

Results of British and American Examinations for Licensure.

The *British and Colonial Druggist* gives the following tabulation of the proportion of successful candidates at the minor examinations in Great Britain during almost nine years:

Year.	Number examined.	Number passed.
1903.....	1,676	524
1904.....	1,510	584
1905.....	1,298	468
1906.....	1,165	400
1907.....	1,116	411
1908.....	980	354
1909.....	1,059	396
1910.....	1,027	407
1911.....	891	436
Totals	10,722	3,980

It will be seen that the average percentage of successful candidates is about 37½ per cent. From reports in the *CIRCULAR* we find that as a result of examinations conducted by the boards of pharmacy of thirty-three States and reported during the past eleven months, 1,874 persons were licensed as pharmacists and assistants out of 3,976 examined, the proportion of successful ones being almost 47½ per cent.

At the recent annual meeting of the Pharmaceutical Society of Ireland the report of the president showed that 38 per cent. of the candidates examined for the several grades of licensure were successful. In 1910 the successful ones constituted 39 per cent. of the number examined.

Chemists Wanted for Federal Positions.

An examination to be held December 13th, is announced by the United States civil service commission, with the purpose of securing eligibles for the position of *bacteriological chemist* in the bureau of chemistry, department of agriculture. The position is open to men and women and is salaried at \$1,200 a year. Applicants must be more than twenty years old. The examination will consist of tests in practical chemistry, including bacteriological chemistry. Rating will also be made on education, training, experience and fitness, and knowledge of French and German. A weight of 10 has been made for contributions to scientific literature, or a thesis of not more than 2,500 words on some subject related to bacteriological chemistry. An educational training equivalent to a reputable course of study for the degree of bachelor of science is a prerequisite for consideration for the position.

Vacancies exist in the position of *junior physical chemist* in the bureau of mines. These are open to men only between the ages of twenty and thirty years, and carry salaries of from \$1,020 to \$1,200 a year. An examination to secure eligibles is announced by the commission for December 13th. It will embrace the subjects of chemistry, physics, physical chemistry, and translation from French or German technical literature. Training, experience and fitness will be considered, and an essay or thesis will be required of each applicant. It is required that each applicant have had an educational training equivalent to a four-years' college course in science.

The Right of Privacy.

According to a note in a recent number of the *Keystone*, a Kansas City, Mo., jeweler has been ordered by the circuit court to pay \$350 to a boy whose photograph had been used without the boy's permission in an advertisement by the jeweler. The same court had, in the instance of the cause's first hearing, sustained a demurrer on the ground that a photograph was not property. This ruling was reversed by the appellate court and the subsequent hearing before a jury had the afore-mentioned outcome, November 1st.

The photograph was printed as a part of an advertisement in which the boy was quoted as saying: "Papa is going to buy mamma a watch for Christmas and somebody (I won't say who) is going to buy sister a diamond ring. What are you going to buy for me?"

Chemists to Meet.

The winter meeting of the American Chemical Society will be held at Washington, D. C., December 27th to 30th. Several sessions of the division of pharmaceutical chemistry have been provided for, and an interesting program is being prepared.

Meetings of American Pharmaceutical Association Branches.

Nashville.—At the October meeting of the Nashville (Tenn.) Branch of the American Pharmaceutical Association the secretary announced that the balloting by mail had resulted in the election of the following officers: President, J. O. Burge; vice-presidents, Prof. E. A. Ruddiman and D. J. Kuhn; treasurer, C. C. Young, and secretary, W. R. White.

An invitation was extended to all members of the parent organization in Tennessee asking them to become members of the branch without the payment of local dues.

A discussion of some of the formulas proposed for admission to the National Formulary (see last month's CIRCULAR, page 651) made up the business of the meeting held November 9th. The comment was as follows:

Compound elixir of almond.—Either the natural or the acid-free oil of bitter almonds affords satisfactory preparation, but the formula should specify which sort should be used. Synthetic oil of neroli was considered preferable to orange flower water as a flavoring ingredient. The use of kieselguhr as a filtering medium was favorably commented upon.

Aqueous elixir of glycyrrhiza.—This it was thought would fill a long-existing want.

Red elixir.—It was suggested that a small quantity of caramel be used in this to overcome the purplish tone of the cudbear.

Elixir of three bromides.—A better vehicle for this in flavor and color, it was remarked, would contain 10 per cent. of the aqueous elixir of glycyrrhiza.

Elixir of formates.—To direct that the formates be prepared extemporaneously from carbonates was considered a better method.

Samples of compound elixir of almond, compound spirit of cardamom, aqueous elixir of glycyrrhiza, red elixir, elixir of three bromides, and compound elixir of formates were presented by members.

This discussion will be continued at the next meeting.

New York.—At the meeting of the New York branch of the American Pharmaceutical Association held November 13th, the chair was occupied by Vice-President G. C. Diekmann, because of the death of President G. H. Hitchcock. Treasurer Joseph Weinstein reported that he had on hand \$12.97.

T. P. Cook, chairman of the committee on education, reported that the committee was in readiness to keep in touch with legislative activities not then begun.

For the committee on the progress of pharmacy, the chairman, Otto Raubenheimer, presented numerous abstracts of timely articles in the foreign press. Among these were notes on the use of wood naphtha in preparations for external use, mention being made of the opposition to this practice, by the *Pharmazeutische Zeitung*; a comparison of cleaning powders with soap to the advantage of the latter; analyses of spiritol, kolymos, odol, and pantopon; tests for caramel; a process for making cresols soluble; a comparison of the various preparations of digitalis; the German restrictions of the sale of aspirin and veronal; and some toxicology cases. He passed around for exhibition samples of thoradin paste and solution, granular iron and ammonium citrate, and a root seemingly of the araceæ, which was sold by grocers as green ginger. He also called attention to the book recently issued by the American Medical Association under the title *Nostrums and Quackery*.

Considerable discussion followed the reading of this report, Messrs. Lascoff, De Jonge, Flowers, Diner, Cook, and Arny taking part.

Several communications were read by Secretary Hugh Craig. One of these had to do with the telephone agitation and was supplemented by a review of the situation by C. A. Mayo. The branch approved the stand taken by the local pharmacal conference in opposition to any reduction in the rate of commissions from slot-machine telephone tolls.

Jacob Diner spoke briefly in the memory of Mr. Hitchcock; and a committee consisting of Messrs. Diner, Mayo, and Craig was appointed to draft memorial resolutions to be embodied in the minutes of the branch.

T. D. McElhenie, of Brooklyn, was elected to fill the un-

expired term of Mr. Hitchcock as the representative of the branch in the council of the parent organization.

A suggestion that the branch occasionally meet in Brooklyn was approved.

To J. L. Lascoff, G. C. Diekmann, T. D. McElhenie, Jeannot Hostman, and Alexander Gardner, were allotted for experimentation a number of formulas proposed for admission to the National Formulary (see last month's CIRCULAR, page 651).

Some little general discussion of these formulas occurred. And the secretary was instructed to request all members of the branch to comment upon the admissions and other changes proposed by the National Formulary committee.

Washington.—The first of the season's meetings of the Washington (D. C.) branch of the American Pharmaceutical Association was held November 18th, and was devoted to a discussion of matters relating to the revision of the National Formulary.

Elixirs containing but a small proportion of alcohol were considered at length; and this led to a discussion of the use and abuse of alcohol in pharmacy. It was pointed out that because of the palatability of elixirs they were often used by physicians with a total disregard of the consequences of the large quantity of alcohol they contained.

W. H. Bradbury was of the opinion that the nostrum manufacturer was to blame for the introduction of alcohol-containing proprietaries and the more or less objectionable alcohol-containing vehicles of the U. S. P. and the N. F., and that now, being compelled by legislative measures and an awakened public opinion to forsake the use of alcohol in his wares, he would no doubt drive the drug trade generally to the disuse of alcohol for all purposes other than as a solvent. Mr. Bradbury condemned the compound digestive elixir, saying that it was nothing but an alcoholic cordial.

W. S. Richardson spoke of the changes he had seen in vehicles, from the aromatic waters and syrups of bygone days to the alcoholic elixirs and cordials of to-day.

Many official elixirs can be and are used as tipples, said Dr. L. F. Kebler, citing "beef, iron and wine" as an instance.

That many elixirs can easily be replaced with aqueous preparations, was the opinion of H. E. Kalusowski, who opposed the use of alcohol except in cases where its solvent properties were necessary.

Messrs. Hunt, Motter, and Wilbert also took part in the discussion; and the following resolution was adopted:

Resolved: That the members of the City of Washington branch of the American Pharmaceutical Association present at this meeting regard with regretful disfavor the continuance in the National Formulary of preparations that can be used as tipples, and suggest that the alcohol in all National Formulary preparations be reduced or eliminated wherever not actually necessary as a solvent.

Massachusetts Association.

There has been a widespread error in the reporting of the meeting of the Massachusetts Pharmaceutical Association held at Hull, in June. The secretary has therefore sent out the following correct list of the officers chosen on that occasion: President, W. S. Briry, of Melrose; vice-presidents, W. M. Curtis, of Boston; F. J. Campbell, of Lowell; and J. T. Harper, of Great Barrington; secretary, J. F. Guerin, of Worcester; and treasurer, T. B. Nichols, of Salem.

Michigan Retail Association.

At the annual meeting of the Michigan Association of Retail Druggists held at Flint, in October, the following officers were elected: President, D. D. Alton, of Fremont; vice-presidents, J. Gilleo, of Pompeii, and G. S. Layere, of Bay City; secretary, R. W. Cochrane, of Kalamazoo; treasurer, W. C. Wheelock; members of the executive committee, C. A. Bugbee, of Traverse City; Grant Stevens, of Detroit; and D. J. Look, of Lowell.

Western Women Elect Officers.

At the annual meeting of the Woman's Pharmaceutical Association of the Pacific Coast held October 27th, at San Francisco, the following officers were elected: President, Dr. Josephine Barbat-Winslow; vice-presidents, Miss Clarissa Roehr and Mrs. J. H. Flint; treasurer, Miss Pauline J. Nast; and secretary, Mrs. R. E. White.

Volume of American Proprietary Medicine Business.

Under date of November 30th, there was sent out by the bureau of the census of the federal department of commerce and labor a preliminary compilation of statistics relative to proprietary medicines, dentifrices, capillary applications, cosmetics and perfumes. Preparations made by manufacturing chemical establishments are not included. As a part of this compilation appears the following tabulated summary:

	Census of		Per cent of increase
	1909.	1904.	1904 to 1909.
Number of establishments.....	3,642	2,777	31
Capital	\$99,942,000	\$75,607,000	32
Cost of materials used.....	\$50,376,000	\$39,494,000	28
Salaries and wages.....	\$26,904,000	\$17,888,000	50
Salaries	\$17,007,000	\$9,975,000	70
Wages	\$9,897,000	\$7,913,000	25
Miscellaneous expenses.....	\$37,027,000	\$33,567,000	10
Value of products.....	\$141,942,000	\$117,436,000	21
Value added by manufacture (value of products less cost of materials)	\$91,566,000	\$77,942,000	17
Employees:			
Number of salaried officials and clerks	15,404	9,483	62
Average number of wage earners employed during the year..	22,895	20,472	12
Primary horsepower.....	25,659	17,008	51

Anti-Narcotic Doings.

Two complaints have been made against a prominent druggist of Salt Lake, Utah, charging him with illegally supplying cocaine and morphine to habitual users of the drugs, and conniving with would be purchasers to evade the provisions of the law by faked prescriptions. The charges are the result of the co-operation of the Utah Board of Pharmacy, the medical board, and the local police.

A Boston, Mass., man has been held in \$300 bail on each of two counts covering an alleged violation of the anti-cocaine law. The first count charges the forgery of a physician's name, the second is based on the possession of the proscribed drug.

An inspector employed by the California Board of Pharmacy secured evidence against three Sacramento druggists sufficient to oblige two of them to plead guilty to charges of selling illegally, and to bring about the arrest of the third. The two who plead guilty were fined \$175 each; the third was released under bond.

Capsicum in Ginger Ale.

A jury in the county court sitting recently at Philadelphia, Pa., brought in a verdict of not guilty in a case in which the offense charged was an alleged violation of the State non-alcoholic drink law, consisting in the sale of an imported brand of ginger ale containing capsicum, without this constituent being named on the label. The defense was that no capsicum was used in the product, although capsicum was used as a component part of ginger ale for many years prior to the enactment of the law in 1909, and that capsicum was a customary and accepted ingredient of ginger ale.

In his charge to the jury, the trial judge instructed the jurors to find for the defendant if they were satisfied that capsicum is and was a common ingredient in ginger ale, if they had any doubt that the pungency of the product in question was due to capsicum; and if they believed that any capsicum present in the product was not used in imitation of ginger.

Mme. Curie Gets Nobel Prize.

The Nobel prizes for 1911 were awarded early in November. The prize in chemistry went to Mme. Marie Sklodowska Curie, of the University of Paris, for her work in the field of radio-activity.

The prize in physics was awarded to Prof. Wilhelm Wien, of Würzburg University. Each prize amounts to \$40,000.

Having served the populace of Parsons, Kan., continuously for forty years—thirty of them spent in one building—the firm of W. C. Holmes & Son moved into a brand new store October 23d, and started with renewed vigor to reach the century mark.

Dinners and Similar Relaxations.

With Dr. Henry H. Rusby as the guest of honor, the Syracuse (N. Y.) Druggists' Association more than enjoyed itself at the annual banquet held November 13th. Herbert Walker was toastmaster and E. S. Dawson was historian. Dr. Rusby's address was a travelogue about the Amazonian region of South America, with stereopticon illustrations.

The New Orleans (La.) Drug Club had a supper and much post-prandial oratory on the evening of November 2d.

There is a new social club for drug-folk in St. Paul, Minn. The officers are: President, H. W. Rietzke; and secretary and treasurer, Amiel Alperstein.

Some 300 employees of the Owl Drug Company, at San Francisco and Oakland, Cal., tripped to Sacramento, October 22d, by a special train, inspected the new Owl store there, paraded, luncheoned, and held an open-air dance.

More than one hundred persons were present at the banquet of the Louisville (Ky.) Retail Druggists' Association, October 26th. Dean Gordon L. Curry, of the Louisville College of Pharmacy, presided. The principal speakers were R. M. Allen, of the State food and drugs department; William Bloomfield, of the board of pharmacy; Dr. D. S. Wilson, Simon N. Jones, Rev. P. B. Wells, and J. J. Seibers.

From the tuning up of the fiddles to the cigars after the "Dutch lunch," there was nothing but enjoyment for those present at the "smoker" of the Long Island Drug Club which was held at Brooklyn, on the evening of November 20th. The Brooklyn Pharmaceutical Association was a patron of the event.

The Wedgewood Club, of Brooklyn, N. Y., will have a minstrel show and reception at Schwaben Hall, December 7th.

Telephones in Drug Stores.*

Charles Rehfuß spoke of the telephone situation in Philadelphia, which he said was among the first cities in which druggists had made a stand for their rights at the hands of the telephone companies. The telephone was now a source of a good deal of profit to druggists in that city. On a basis of 33½ per cent. commission even some of the smaller stores there realized as much as \$50 to \$75 a month from their telephone pay stations. Some of the druggists charged 5 cents for delivering messages, and from this source of revenue secured enough to pay the wages of a boy.

Mr. Alpers said that the commission in New York was only 20 per cent. and that there was some talk of cutting it in half.

Mr. Rehfuß' comment on this statement was that if any such threats were made in Philadelphia, three-fourths of the druggists would stand together, even to the extent of ordering the telephones out of their stores.

Mr. Bodemann had tried to arouse the interest of New York druggists in the telephone situation, but had never been able to get any reply to his letter of inquiry addressed to his metropolitan brothers.

In Baltimore, said C. L. Meyer, the druggists had the situation well in hand.

Prof. Beal Resigns from Pittsburgh College.

In order that he may devote more time to his duties as general secretary of the American Pharmaceutical Association and editor of its *Journal*, Prof. J. H. Beal has resigned the chair of theory and practice of pharmacy at the Pittsburgh College of Pharmacy. He will remain on the faculty as lecturer on pharmaceutical jurisprudence.

Louis Saalbach, for several years a member of the Pittsburgh college teaching force, has been appointed to succeed Prof. Beal.

Sunday Closing.

Beginning October 29th, the drug stores of Brunswick, Ga., are closed on Sundays from 10:30 A. M. to 2 P. M.

The druggists of Amityville, N. Y., began November 5th, to close their stores between the hours of 1 and 5 on Sunday afternoons.

*From the report of last year's meeting of the American Pharmaceutical Association in the Circular for June, 1910, page 314.

German Apothecaries' Society.

At the regular meeting of the New York German Apothecaries' Society, held November 2d, Emil Roller, chairman of the scientific committee, announced that he had sent invitations to fifteen members of the society, who had a large prescription business, asking them to attend and discuss the proposed changes in the Pharmacopœia. Inasmuch as only two members had accepted this invitation, he thought it advisable to circulate a list of the proposed admissions and deletions among the members asking for expressions of opinion relative to the articles to be admitted or to be dropped. The society authorized him to do so.

Mr. Roller announced that he intended to present a paper on "Emulsions" at the next meeting.

S. V. B. Swann, chairman of the legislative committee, read a communication from a fidelity and casualty company, in which attention was called to a new law in which the giving of rebates to customers is prohibited.

Nothing new could be reported in regard to the charges brought by the municipal board of health against several druggists alleging the use of tartaric acid in solution of magnesium citrate. The cases had been postponed. It was found that the examinations made by the board and those made according to the U. S. P. were not reliable, and could not be used as legal arguments.

Mr. Swann stated that the telephone company intended to reduce the druggists' commissions from 20 per cent. to 10 per cent. A lengthy and lively discussion of this matter followed, in which Messrs. Alpers, Behrens, Klippert, Hirseman, Gilbert, and Morey took part. It was finally decided to send a circular letter to every druggist in Manhattan and the Bronx, asking them not to accept the conditions urged by the company, and not to sign any new contract.

O. P. Gilbert said that he would submit a detailed report on the jubilee celebration at the next meeting. He also suggested having an entertainment and mask-ball March 21st. Which suggestion was accepted with much applause.

After the election of three persons as members the meeting adjourned.

New York College Notes.

A regular meeting of the College of Pharmacy of the City of New York, Columbia University, was held October 17th, at which Prof. H. V. Arny, the new professor of chemistry, spoke informally on "The Trend of Modern Pharmaceutical Education."

Albert Plaut told of the meeting of the International Congress of Applied Chemistry which will meet in this city in September. It was decided to place the auditorium and other facilities of the college building at the disposal of the visitors to the congress.

The student athletic association has taken on a permanent form, and schedules for the ensuing season are being prepared.

At a meeting of the board of trustees held November 14th Dr. Virgil Coblentz was made professor emeritus in chemistry.

R. R. Schleussner, Jr., has gained the senior free scholarship for this year.

The annual banquet of the alumni association will be held at Healy's, Columbus avenue and Sixty-sixth street, Manhattan, on the evening of December 6th. The affair will be strictly informal. Tickets may be had of Prof. C. W. Ballard, 115 West Sixty-eighth street.

Kings County Society.

Telephonic grievances and the airing thereof consumed the greater portion of the time at the meeting of the Kings County (N. Y.) Pharmaceutical Society held at Brooklyn, November 14th. For the first time in several years there were no elections to or applications for membership.

Because of the illness of Dr. William Muir, whose death later is noted on page 720, the reports of several committees of which he was the chairman, were not heard.

The gratifying financial condition of the society and its subsidiary institution the Brooklyn College of Pharmacy was attested by the report of Treasurer Adrian Paradis, and T. J. France announced that the attendance at the college was the largest in its history.

The paper of the day was read by W. M. Macnaughton who had as his subject "Some Suggestions Regarding the Revision of the United States Pharmacopœia."

Dr. Rusby Lectures in Newark on Pure Drugs.

Few men have as clear an idea of what the people need in the shape of food and drugs laws, as has Dr. H. H. Rusby. Not only is Dr. Rusby a physician and a pharmacognosist but he has long made a study of drug adulteration and was regarded as an expert at detecting it long before there was such a thing as a federal food and drugs act. Dr. Rusby is a strong advocate of the passage and enforcement of State laws to prohibit the adulteration or misbranding of foods and drugs, as the federal government has no jurisdiction over such adulteration and misbranding in cases in which the food or drug is manufactured, sold and reaches the consumer all within a single State. He emphasized the necessity for State regulation of food and drug traffic in a lecture delivered before the Wednesday Club of Newark on the evening of November 15th. A synopsis of his remarks appeared in the *Newark Evening News* the next day.

Incidentally it may be mentioned that the *Newark Evening News* stands out conspicuously among the newspapers of the land as one which accords much space and intelligent treatment to matters which affect the health and lives of the public.

Ohio Doctors and Druggists Meet.

Instead of the customary order of business the Cincinnati Academy of Medicine at the meeting held October 30th, listened to papers by members of the Ohio Valley Druggists' Association. As a "joint meeting" the affair was very successful. Prof. G. B. Kaufman was the first speaker, having for his subject "The Unqualified Medicine Vender." The burden of his address was the necessity for protecting the public from the operations of the traveling medicine pedler. His arguments were so convincing that the academy passed a resolution tendering its aid to the druggists in securing the enactment of a law that will require the registration of itinerant vendors and the publication of the composition of their wares.

"Self-Medication" was the subject presented by T. D. Wetterstroem. He called attention to the alarming growth in the undirected use of those proprietary medicaments once so popular with the medical profession, and introduced by its members to the laity through the prescribing of original packages. Coal-tar synthetics, painted pellets, and the prescribing of narcotics were other targets for the speaker's shafts of fact and reason.

F. K. Kisker set forth "The Advantages of the Use of Medicines Made from Standard Formulas over Those Made from Secret Formulas." After stating the purposes of the Pharmacopœia and the National Formulary, he showed how the druggist was by education, training, and legal restriction placed in a position to accomplish these purposes for the physician. He concluded with brief descriptions of six popular official preparations.

In a paper on "What the Physician Can Do to Elevate Pharmacy," E. H. Thiesing told his hearers that pharmacy deserved the assistance of the medical profession in the endeavor to cast out the unfit. His condonation of the prescriber for the petty failings of the dispenser were often attributable to an oversight on the part of the former. He appealed for aid in bringing together pharmacy and pharmacists, medicine and physicians for the ultimate benefit of the public.

Several informal talks followed the address and later a luncheon was served.

At its recent annual meeting the Calvert Drug Company, a Baltimore co-operative buying organization, elected the following officers: President, H. F. Lindeman; vice-president, R. E. L. Williamson; secretary, J. F. Frames; and treasurer and manager, J. G. Beck. These officers, together with F. W. Schanze, C. L. Meyer, and G. C. Patterson, constitute the board of directors.

David H. Ross, of Philadelphia, a member of the executive committee of the Philadelphia Association of Retail Druggists and formerly secretary of the Philadelphia Wholesale Drug Company, is now a member of the council of the Quaker City, having been elected to represent the thirty-first ward.

The British parliament, by an act that became effective in August, has decreed that no person may use the emblem of a red cross on a white ground, the words "red cross" or "Geneva cross" for any purpose without authority from the army council.

When Cod Liver Oil Advanced.*

BY ELLIS PARKER BUTLER.

"I remember one story I told—" Uncle Ashdod began. "I remember all you ever told," said Sim Perkins unkindly. "I've heard 'em over and over, until—"

"And this perticklar story I told to what was just about the biggest old codfish I ever seen," said Uncle Ashdod, and Sim Perkins pricked up his ears.

"What's that you say?" asked Sim. "You wasn't tellin' tales to codfish, was you?"

"I felt it was my duty," explained Uncle Ashdod. "Funny stories they was, too. Anything to make a codfish laugh was what I told. When a feller has a conscience like what I've got, and he feels he's got to tell funny stories to codfish, why, he ups and does it. Them consumptive snakes—"

"What's that?" said Sim Perkins hastily. "You didn't mention no snakes."

"Consumptive snakes was what I said, and consumptive snakes was what they was," said Uncle Ashdod firmly. "Yeller sea snakes from off the coast of Burmah, and when they scooted for the coast of Norway—"

"I thought yeller sea snakes was hot climate snakes, but that don't matter. Nothin' matters when you get talkin' once," said Sim Perkins.

"So they be! So they be!" said Uncle Ashdod frankly. "Hot climates is the habitat of them yeller sea snakes; the hotter the better, but not too hot. Seems like they had had a mighty especial hot summer down Burmah way that year I sailed the Sally Jane down there. Mighty hot! It was so hot the water was all boilin' around the ship, and when I looked down at them poor snakes, all dyin' of consumption—"

"Never heard of a snake dyin' of no such thing!" said Sim Perkins.

"Lack of good air," said Uncle Ashdod shortly. "Water boiled, and boiled all the air out of it. Naturally them snakes got consumption. And when I seen how it was with 'em I just says to the mate, says I, 'Mate,' I says, 'see them poor consumptive snakes? It would be a great thing,' I says, 'if they knew cod liver oil was good for consumption,' I says, 'and, think, mate,' I says, 'of all them codfish off the coast of Norway! If some feller was to bring a cargo of cod liver oil,' I says, 'and dump it right here into this water,' I says, 'them snakes would get well,' I says. That's what I says. 'Them snakes would recover,' I says."

"So you set out and got a cargo of cod liver oil?" said Sim Perkins scornfully. "That's what you did, ain't it? Oh, yes!"

"If I was to tell you that," said Uncle Ashdod, "I'd be tellin' you a lie, Sim, and I wouldn't lie to you. No, sir! I didn't get no cargo of nothin'. Just as soon as them consumptive yeller water snakes heard what I said to the mate they scooted off. Scooted, that's the only word for it. And I hadn't no idea where they went, neither. But about two years later, when I was loadin' a cargo of peanuts at N'Orleans, the mate—he was sittin' on th' dock readin' a newspaper—says, says, he, 'Huh! This is funny!' So I says, 'What's so funny?' And he says, says he, 'Cod liver oil business gone to ballyhack,' he says. 'How so?' I says. 'Well, sir,' he says, 'nobody can't make head nor tail of it,' he says, 'but the cods they're catchin' off th' coast of Norway this year ain't got no livers. They've caught a million,' he says, 'and not one cod had a liver into it. And when they ain't got livers nobody can make cod liver oil out of 'em.'"

"So you went and fixed it up all right, didn't you?" said Sim Perkins sarcastically. Uncle Ashdod coughed modestly.

"Leastways I done what I could," he admitted. "'Mate,' I says, 'spread sail an' up anchor an' get a hustle on. We've got to go right plump to the coast of Norway. Peanuts be durned!' I says. 'I've got to save that there cod liver oil business.' So we made good time, and it was just like I expected it would be. Them consumptive yeller water snakes was eatin' all the cod livers."

"I thought maybe it would turn out that way," said Sim Perkins.

"And I knowed it would!" said Uncle Ashdod, unabashed. "Them yeller water snakes had heard what I said down there off the coast of Burmah, and when they scooted they scooted for Norway and begun eatin' cod livers. So I felt

sort of responsible. And for twelve months I sat on the bowsprit of the Sally Jane and told funny stories to them codfish—"

"To sort of encourage 'em to grow new livers?" asked Sim.

"No, sir!" said Uncle Ashdod. "To keep 'em from yawning. You see, them yeller water snakes didn't have no sense of humor. They was very dry talkers, as you may see, and one of 'em would get in front of a lively lookin' codfish an' begin tellin' a story. By an' by the cod would sort of lose interest, but that snake would hold it fascinated with its eye, and go on spinnin' that dry yarn, and by an' by the cod would yawn a little. Snake would go on yarnin'. Cod would yawn a little more. Snake would go on yarnin'. Cod would yawn and yawn and yawn, and all of a sudden—Bish!—the snake would dash its head down that poor cod's throat and grab its liver, and—swish!—it would dart out of that cod's throat again and scoot off with the liver, to eat it quiet like. That's what happened to all them cods and all them cods' livers."

"Ho, hum!" said Sim Perkins, stretching his arms.

"So I told a few funny stories," said Uncle Ashdod, "and that kept them cods from feelin' yawnish. 'Course,' he admitted, "they opened their mouths to laugh at what I was tellin' 'em, but they wasn't yawnish and indolent and too tired to do nothin'. Them funny stories I told 'em waked 'em up, like my yarns always wakes folks up and—"

"Ho, hum!" said Sim Perkins, wearily.

"And when a consumptive yeller water snake poked its head into a cod's mouth, snip! the cod bit its head off."

But Sim Perkins opened his mouth and yawned and yawned and yawned.

"Ye durned old codfish!" said Uncle Ashdod disgustedly.

The Confiding Skeptic.*

You can't make William Brown believe

There was an Adam or an Eve—

No, sir! He says that's just a myth

To play on people's feelings with.

It's no use to give William tracts,

He says he runs his mind on facts!

Yes, William's baldness has grown chronic.
Although he used the barber's tonic!

And William Brown he says the flood
Is just a myth, as plain as mud.
He says old Noah never made
The ark, but on dry land he stayed.
He's from Missouri, and you know
That sort o' man you've got to show.

Yes, his dyspepsia's nearly killed him,
Although with stummick balm they filled him.

"Humph!" William Brown will say, "that tale
About old Jonah and the whale
Is all pure legend! Why will you
Believe a thing you know ain't true?
Now I will not believe a bit
O' stuff that isn't definite!"

Yes, Brown's rheumatic pains still hold him,
In spite of what the druggist sold him

And William Brown will almost fight
If you say his views are not right.
"Don't try to talk to full grown men
O' Daniel in the lions' den!"
He'll shout till others stand aloof,
"I won't believe till you bring proof!"

Yes, Brown gulps down without a quiver
Old Doctor Bink's Dope for the Liver.

A fraud-order has been issued by the postoffice officials denying the use of the mails to the exploiters of "parfait amour" a "love-inducer" in the form of a chewing gum.

Customer: Have you invisible face powder? Drug clerk: Yes, ma'am, what color? Customer: Let me see them, please.

*From the New York Times.

*From the Chicago Post.

News of the Pharmacy Boards.

List of Board Secretaries.

In the following list are to be found the names and addresses of the secretaries of the various boards of pharmacy of the country. When the date and place of the next meeting of a board are known they are given also.

Secretaries are requested to keep us informed as to dates and places.

- ALABAMA—February 13th, at Birmingham. E. P. Galt, Selma.
- ARIZONA—A. G. Hulett, Phoenix.
- ARKANSAS—J. F. Dowdy, Little Rock.
- CALIFORNIA—January 15th, at Los Angeles; January 22d, at San Francisco. Louis Zeh, San Francisco.
- COLORADO—S. L. Bresler, Denver.
- CONNECTICUT—December 5th, at Hartford. J. A. Leverty, Bridgeport.
- DELAWARE—N. C. Downs, Wilmington.
- DISTRICT OF COLUMBIA—January 11th and 12th, at Washington. S. L. Hilton, Washington.
- FLORIDA—January 16th and 17th, at Jacksonville. D. M. Ramsaur, Palatka.
- GEORGIA—April —, at Atlanta. C. D. Jordan, Monticello.
- IDAHO—J. M. Starrh, Shoshone.
- ILLINOIS—F. C. Dodds, Springfield.
- INDIANA—January 9th and 10th, at Indianapolis. W. H. Fogas, Mt. Vernon.
- IOWA—December 5th, at Des Moines. E. J. Moore, Des Moines.
- KANSAS—W. E. Sherrieff, Ellsworth.
- KENTUCKY—January 9th and 10th, at Covington. J. W. Gayle, Frankfort.
- LOUISIANA—F. E. Earhart, New Orleans.
- MAINE—December 13th and 14th, at Augusta. F. W. Bucknam, Skowhegan.
- MARYLAND—Ephraim Bacon, Roland Park.
- MASSACHUSETTS—Every Tuesday between September 1st and July 1st, at Boston. P. J. McCormick, Boston.
- MICHIGAN—J. J. Campbell, Pigeon.
- MINNESOTA—January 15th and 18th, at Minneapolis. C. T. Heller, St. Paul.
- MISSISSIPPI—April 2d, at Jackson. L. H. Wilkinson, Greenwood.
- MISSOURI—December 6th, at Hannibal. C. E. Zinn, Kansas City.
- MONTANA—April 10th, at Helena. S. J. Coffee, Missoula.
- NEBRASKA—A. V. Pease, Fairbury.
- NEVADA—R. L. Prouty, Tonopah.
- NEW HAMPSHIRE—December 27th, at Concord. A. S. Wetherell, Exeter.
- NEW JERSEY—January 18th and 19th, at Trenton. H. A. Jorden, Bridgeton.
- NEW MEXICO—A. J. Fisher, Santa Fe.
- NEW YORK—W. L. Bradt, Albany.
- NORTH CAROLINA—December 5th, at Raleigh. F. W. Hancock, Oxford.
- NORTH DAKOTA—March 19th, at Fargo. W. S. Parker, Lisbon.
- OHIO—F. H. Frost, Columbus.
- OKLAHOMA—January 9th and 10th, at Oklahoma City. J. C. Burton, Stroud.
- OREGON—F. C. Pozzi, Portland.
- PENNSYLVANIA—L. L. Walton, Williamsport.
- RHODE ISLAND—December 5th, at Providence. J. E. Brennan, Pawtucket.
- SOUTH CAROLINA—March 20th, at Columbia. F. M. Smith, Charleston.
- SOUTH DAKOTA—E. C. Bent, Dell Rapids.
- TENNESSEE—January 16th, at Nashville. I. B. Clark, Nashville.
- TEXAS—January 16th, at Austin. R. H. Walker, Gonzales.
- UTAH—January 16th and 17th, at Salt Lake. W. H. Dayton, Salt Lake.
- VERMONT—D. F. Davis, Barre.
- VIRGINIA—January 23d, at Richmond. T. A. Miller, Richmond.
- WASHINGTON—December 27th and 28th, at Seattle. James Lee, Seattle.
- WEST VIRGINIA—A. Walker, Sutton.
- WISCONSIN—January 16th, at Madison. Edward Williams, Madison.
- WYOMING—C. B. Gunnel, Evanston.

Alabama Board.

Of the thirty-seven candidates for registration examined at the meeting of the Alabama Board of Pharmacy held October 10th, at Montgomery, the following twenty-eight were successful:

W. M. Curry, M. J. Demony, C. B. Dyar, E. H. Edward, W. E. Evans, F. L. Flaxo, L. P. Fort, L. C. Gillespie, S. H. Henderson, Jr., Francis High, Lewis Howle, J. L. Hughes, A. B. Jarrell, J. H. Jenkins, C. C. King, J. D. King, W. L. Lamar, Jr., A. E. Lounds, S. H. Maxwell, V. B. Oliver, J. K. Scott, G. M. Shackelford, S. W. Stanford, C. E. Stuffell, J. L. Tew, Vera Thompson, Arthur Wood, and B. H. Wyatt.

Samuel Williams, of Troy, was chosen as president by the board. W. E. Bingham, of Tuscaloosa, has been named by the governor to succeed himself as a member of the board.

The next meeting will be held at Birmingham, February 13th.

California Board.

At the meeting of the California Board of Pharmacy held at Los Angeles and later at San Francisco, beginning October 9th, the following persons were the successful applicants for registration:

As pharmacists—E. A. Aldrich, Leonard Aquiline, C. H. Arthur, G. C. Baker, M. W. Bartholomew, C. C. Bruch, C. E. Bunnell, R. C. Burnett, J. E. Burton, Andrew Burvenich, Thomas Capell, G. G. Carpenter, Benjamin Dill, V. P. Doty, F. W. Edwards, A. H. Fisk, R. C. Gilliland, E. L. Griffith, P. H. Ghruhn, L. E. Happell, Henry Henkin, S. P. Herron, G. R. Hinckley, J. B. Hine, W. H. Hobin, T. W. Howey, G. A. Jacob, W. C. Johnson, D. S. Katz, W. B. Kurtz, L. W. Kurtzman, A. R. Lainer, Fritz Lainer, E. J. Lewis, Samuel Lindenbaum, J. I. Lorton, J. A. W. Luck, J. B. MacDonald, S. C. Maloney, J. F. Martin, Albino Martinetti, W. E. Matern, A. M. Maynon, W. J. Mentz, Philip Metz, G. T. Morris, D. W. Ostrom, L. R. Pardee, G. P. Peck, E. G. Poirier, W. D. Pratt, M. S. Robertson, I. G. Rodda, V. L. Rodda, E. H. Seeliger, James Shalda, F. P. Shannon, W. H. Smith, F. E. Starr, F. D. Tallman, R. L. Terrell, H. N. Thompson, O. L. Ward, and H. E. Wolfe.

As assistants—C. E. Brunger, A. K. Dellarowe, G. A. Doan, C. M. Drumm, P. A. Dubois, Jr., Lester Gawthrop, Raymond Gillis, F. H. Grant, I. J. Hamilton, I. J. Heckman, B. B. Hoffmaster, C. O. Howard, J. L. Hume, Henshaw Jee, Jesse Jensen, W. T. Jones, Herbert Lewis, N. W. Long, W. A. Mathison, E. L. Mazy, R. H. McGarvin, O. B. Pennington, W. B. Pope, F. F. Rajotte, H. B. Reid, H. F. Saake, P. F. Sage, and J. R. Turner.

The board has been quite active in breaking up the illicit sale of narcotics by druggists. Several dope-sellers have paid large fines as a result; details are given on page 714.

The next meeting of the board will be held at Los Angeles and San Francisco, beginning January 9th and continuing for two weeks.

Georgia Board.

There were eighty candidates examined by the Georgia Board of Pharmacy at the meeting held November 6th and 7th at Atlanta, the following thirty-six passing:

J. C. Armstrong, of Madison, Fla.; B. J. Balkcom, of Macon; C. T. Beacham, Jr., of Dexter; G. H. Bledsoe, of Montezuma; S. F. Boifeuillet, of Macon; W. E. Brice, of Atlanta; E. N. Capers, of Woodruff, S. C.; W. N. Carter, of Columbus; E. E. Christian, of Morganfield, Ky.; A. C. Cook, of Adairsville; E. E. Cox, of Stillmore; J. B. Davis, of Sasser; J. W. Davis, of Atlanta; J. A. Delgado, of Jacksonville, Fla.; G. B. Etheridge, of Quitman; G. C. Guerart, of Huyton; W. S. Gunn, of Graymount; R. L. Hays, of Mansfield; J. W. Jacobs, of Grayson; S. A. Jordan, of Slocomb, Ala.; J. D. Juhan, of Crystal River, Fla.; Margaret Kimmel, of Kirkwood; C. C. King, of Dundee, Ky.; K. W. King, of Rome; A. J. Lane, of Franklin; Hugh Legg, of Malena; O. L. Lockhart, of Brookville, Fla.; H. S. McCurry, of Atlanta; T. S. McGahu, of Lithonia; R. P. Nicholson, of Callumville, Ala.; W. C. Owens, of East Atlanta; J. I. Poole, of Lawrence, S. C.; D. S. Peters, of Tampa, Fla.; L. E. Treadway, of Anniston, Ala.; D. H. Varw, of Tampa, Fla.; and R. W. Wooten, of Helena.

The next meeting of the board will be held at Atlanta in April.

Illinois Board.

At the meeting of the Illinois Board of Pharmacy held October 24th and 25th, at Springfield, forty-four persons

made application for registration as pharmacists, fourteen as assistants and two applied for local registration. The successful ones numbered eleven, six and one in the respective classes; their names follow:

As pharmacists—S. H. Collins, of Chicago; W. S. Denton, of Beardstown; Max Feldman and F. R. King, both of Chicago; A. P. Niemeyer, of Quincy; D. H. Stone, of East St. Louis; G. H. Stoutin, of Springfield; Frank Samuelson, of Chicago; B. S. Thesen, of Quincy; K. H. Wendler, of Nashville; and B. R. Wooters, of Centralia.

As assistants—S. W. Burda, of Evanston; A. E. Cooper, of Chicago; T. B. Douthill, of Centralia; W. E. Purcell, of Equality; G. W. Stuntz, of East St. Louis; and L. A. Wolf, of DuQuoin.

As local registered pharmacist—J. C. Robertson, of Illinois.

Indiana Board.

Two Indianapolis druggists have lost their licenses as pharmacists through revocation by the Indiana Board of Pharmacy on the grounds of gross immorality. The alleged offence was illicit liquor selling. The cases have been appealed.

Iowa Board.

Solution of hydrogen dioxide under a ruling of the Iowa Board of Pharmacy is not a proprietary medicine and therefore may not legally be sold by any person other than a registered pharmacist. The board has recently been taking steps to secure a more nearly universal regard for this ruling.

In a recent instance the board ruled that an applicant for registration must be able to take the examination in the English language. It has also been decided that no person who gets a general average of less than 75 per cent. or who fails to get at least 60 per cent. in any one subject at an examination shall be licensed. Preparations are being made so as to permit tests in practical work to be made a part of the examination.

Kentucky Board.

The Kentucky Board of Pharmacy at the meeting held October 10th and 11th, at Mt. Sterling, examined twelve applicants for registration. The following nine passed:

As pharmacists—A. T. Bassett, of Mt. Sterling; R. P. Holland, of Murray; H. A. Oelrich, of Covington; H. F. Pesel, of Louisville; T. K. Richards, of Owingsville; H. A. Weichelman, of Covington; and Hugo Weiss, of Cincinnati, O.

As assistants—W. J. Cantrell, of Princeton; and R. H. Phelps, of New Albany.

G. O. Patterson, of Howesville, entered upon his duties as a member of the board; he succeeds J. O. Cook, of Hopkinsville.

Officers for the ensuing year were elected as follows: President, J. H. Martin, of Winchester; and treasurer, R. H. White, of Mt. Sterling. J. W. Gayle, of Frankfort, was retained as secretary, that official being a non-member.

The next meeting will be held January 9th and 10th, at Covington.

Maine Board.

Of the nineteen candidates for registration examined at the meeting of the Maine Board of Pharmacy held October 11th and 12th, at Augusta, the following four passed:

P. J. Begin, of Augusta; R. E. Gray, of South Paris; A. F. Kelleher, of Orono; and F. L. Riley, of Bangor.

The members of the board and F. H. Wilson, of Brunswick, and C. H. Davis, of Bangor, ex-members, enjoyed a dinner party subsequent to the meeting.

The next meeting of the board will be held December 13th and 14th, at Augusta.

Maryland Board.

At the October meeting of the Maryland Board of Pharmacy held at Baltimore, the following persons passed the examinations of candidates for registration:

As pharmacists—L. J. Cohen, Leon Dettelbach, R. T. Kelly, H. G. Lehr, H. W. Matheray, C. O. Miller, R. G. Phelps, N. E. Shakespeare, J. A. Sollod, J. F. Stultz, and A. D. Walker.

As assistants—J. S. Austerlitz, Flora Blattstein, G. R. Brooks, J. W. Brown, Christian Fiske, J. B. Hihn, Jr., J. J.

Kerr, Hermann Metz, F. H. Mustard, E. W. Schotta, and M. L. Winkel.

Massachusetts Board.

At the meetings held October 3d and 10th, the Massachusetts Board of Pharmacy examined thirty-six applicants for registration, and passed the following eighteen:

As pharmacists—J. E. Harris, of Cambridge; Charles Leibel, of Boston; H. J. Masse, of New Bedford; Theodore Montcalm, of Holyoke; J. A. Ryan, of Boston; T. E. Soucy, of Taunton; and H. G. Tuttle, of Watertown.

As assistants—W. D. Barnes, of Waltham; G. A. Bridges, of Bristol, R. I.; J. A. Hurley, of Lexington; E. P. Kelley, of Woburn; E. E. Kendall, of Plymouth; F. J. Lambert, of Somerville; P. E. Mannion, of Fall River; C. C. Northrop, of Gardner; W. J. Taylor, of Providence, R. I.; L. A. Webber, of Milford; and Herman Weinstein, of Bristol, R. I.

Minnesota Board.

Thirteen passed out of fifty-one examined was the result of the examination of candidates for registration held by the Minnesota Board of Pharmacy at Minneapolis in October. The successful ones are:

As pharmacists—E. G. Carlson, of Duluth; R. E. Desmond, of Rushford; C. A. Errickson, of Minneapolis; K. F. Fuhlbruegge, of Sandstone; W. F. Hoppe, of Willmar; H. O. Kadlec, of Minneapolis; and H. E. Snyder, and Oscar Swoboda, both of St. Paul.

As assistants—E. F. Budde, of Minneapolis; H. H. Hart, of Minnebagio; E. M. Nesse and W. M. Peters, both of Minneapolis; and C. O. Peterson, of St. Paul.

The next meeting of the board will be held January 15th to 18th, at Minneapolis.

Mississippi Board.

At the October meeting of the Mississippi Board of Pharmacy, sixty-seven candidates for registration were examined, of whom thirty-seven passed.

The next meeting of the board will be held April 2d, at Jackson.

Missouri Board.

As a result of the examinations conducted by the Missouri Board of Pharmacy during its meeting held October 9th, at St. Louis, the following persons were licensed to practice:

As pharmacists—C. R. Archibald, Hugo Baepher, W. C. Barton, Vincenzo Chiana, H. Dennhardt, H. G. Douglas, L. E. Ellis, L. A. Engel, Solomon Feigenbaum, Sister M. E. Hogan, Sister M. I. Hogan, E. B. Kent, Sister M. B. Kuyven, G. C. McCormack, F. H. McMurtry, I. A. Melnick, Sister M. E. Mertens, A. E. Mueller, R. B. Myers, W. E. Pipert, Serafino Rapini, Sister M. S. Sallerman, Agnes Smiley, W. J. Stanley, F. A. Steiner, O. L. Wallar, Sister M. D. Wendell, William Wetteroth, and S. H. W. Wortmann, all of St. Louis; W. A. Campbell, E. E. Davis, E. T. Douglass, M. L. Kidwell, L. B. Kinnear, T. A. Linck, D. R. Osborne, Evan Pugh, R. C. Puterbaugh, C. H. Shelton, J. H. Skiles, C. C. Slaughter, P. A. Taneyhill and A. I. Trout, all of Kansas City; E. E. Alley, of Princeton; J. C. Bowman, of Triplett; T. C. Brickley, of De Soto; Lee Burton, of Huntsville; Sanford Clevenger, of Plattsburg; R. A. Corbett, of Marshfield; C. L. Cravens, of Excelsior Springs; H. A. Dinges, of Red Bud, Ill.; B. E. Drew, of Ethel; M. W. Ewing, of Trenton; R. W. Finley, of Chaffee; C. J. Fitzgerald, of Mexico; LeRoy Fitzsimmons, of Muscatine, Ia.; G. T. Fleming, of Poplar Bluff; W. A. Franke, of Carrollton; J. A. Gray, of Watson; G. H. Hary, of Clinton; G. L. Hawkins, of East Prairie; E. W. Highfill, of Marshfield; A. W. Hohlt, of Farina, Ill.; G. S. Hopkins, of Nevada; F. E. Hottinger, of Axtell, Kas.; H. H. Hubbard, of Cabool; E. O. Hughes, of Excelsior Springs; A. H. Hulse, of Powersville; L. W. Hume, of Armstrong; J. C. Humphreys, of Laredo; E. B. Jacobi, of Fayette; E. B. Johnston, of Doniphan; S. W. Jones, of Maryville; G. S. Kahl, of Hannibal; O. E. Kidwell, of Green City; T. A. King, of Gallatin; W. E. King, of Mexico; F. L. Kirby, of Paris; C. W. Lyon, of Maitland; E. G. Magruder, of Madison; J. M. Marmaduke, of Deepwater; H. N. McDaniel, of Pattonsburg; C. E. Montgomery, of Owensboro, Ky.; A. M. Moore, of Galena, Kas.; L. J. G. Morrison, of Lawrenceburg; H. S. Owens, of Hannibal; Arthur Pabst, of Anderson, Ind.; R. R. Peek, of Pine Lawn; H. O. Perkins, of Liberty; W. F. Perkins, of Excelsior Springs; A. J. Porter, of

Manhattan; Leo Prince, of Webb City; F. B. Quick, of Memphis; C. A. Rigg, of Mexico; L. C. Rosenthal, of Trenton; W. E. Schuller, of Springfield; H. G. Seitz, of Perryville; S. G. Sidebottom, of Chula; L. A. Sitherwood, of Sandova, Ill.; C. L. Smith, of Kearney; D. H. Stone, of East St. Louis; C. C. Swan, of Maywood; R. J. Teel, of Webb City; G. D. Thomas, of White City, Ia.; H. G. Thomas, of Auxvasse; H. A. Tinney, of Memphis; C. E. Topliffe, of Selina, Kas.; C. C. White, of New Madrid; I. D. Witherow, of Tarkio; and A. B. Young, of Perry.

As assistants—A. G. Burnette, J. J. Burns, C. J. Hoffman, W. H. Kaempf, L. H. McGinnis, F. G. Messerschmitt, A. L. Raithel, and H. E. Steyh, all of St. Louis; H. R. Arnold, of Brunswick; H. D. Brown, of New Bloomfield; I. A. Canada, of Nelson; W. L. Catron, of Bigelow; L. W. Cockrell, of Dewitt; M. C. Finch, of Mount Vernon; L. S. Geiger, Jr., of Boonville; F. J. Kerlagon, of Farmington; R. E. Lister, of Clarence; Lela Maret, of Newtonia; Burd Odell, of Miller; Henry Phillips, of Goodman; O. J. Ramspott, of Wellston; Jacob Ryburn, of Chillicothe; R. J. Shoop, of Columbus Junction, Ia.; J. C. Tompkins, of Fayette; and J. E. Worley, of St. Joseph.

After January 1st, candidates for registration as pharmacists will be required to have been registered as assistants for two years.

The next meeting will be held at Hannibal, December 6th.

Montana Board.

At the meeting of the Montana Board of Pharmacy held October 10th to 12th, at Great Falls, twenty-three applicants for registration were examined, twenty-two, the following, being successful:

As pharmacists—E. E. Adams, of Harlem; W. A. Bade, of Corvallis; Burt Bosan and W. P. Callow, both of Great Falls; L. S. Chaffin, of Harlilton; G. A. Challman, of Hardin; H. G. Harvey, of Anaconda; E. A. Hawkins, of Kalispell; M. E. Pichke, of Somers; Frank Reavley and R. C. Trumbull, both of Great Falls; H. O. Turner, of Sidney; O. L. Veach, of Helena; Fred Voegli, of Bozeman; and G. H. Willett, of Kalispell.

As assistants—G. L. Dunkleberger, of Billings; W. M. Eaman, of Shelby; Fred Hudson, of Plentywood; R. Johnston, of Poplar; J. S. McKebbin, Jr., of Great Falls; E. M. Provost, of Big Timber; and G. L. Sorenson, of Manhattan.

The officers and members of the board are: President, T. M. Kehoe, of Billings; secretary, S. J. Coffee, of Missoula; and treasurer, Emil Storz, of Helena.

The next meeting of the board will be held April 10th, at Helena.

New Hampshire Board

H. E. Rice, of Nashua, has succeeded F. H. Wingate, of the same city, as a member of the New Hampshire Board of Pharmacy. The board is at present constituted as follows: E. H. Currier, of Manchester, president; A. S. Wetherell, of Exeter, secretary; and H. E. Rice, of Nashua.

The next meeting of the board will be held at Concord, December 27th.

New Jersey Board.

At the October meeting of the New Jersey Board of Pharmacy, the following passed the examinations of candidates for registration:

As pharmacists—Jacob Armm, F. L. Feindo, H. Kleinan, David Lesser, Saul Meylackson, and Abraham Teifeld, all of Newark; W. L. Blauvelt, of Englewood; H. H. Boltz, of Philadelphia, Pa.; G. F. Campfield, of Irvington; G. W. Dickie, of Morristown; W. S. Doe, of Jersey City; C. S. Gutzéit, of Philadelphia, Pa.; J. H. Kamerling, of Paterson; Max Kimmel and Abraham Lubman, both of New York, N. Y.; Solomon Major, of Philadelphia, Pa.; W. R. McLaughlin, of Trenton; Samuel Niremblatt, of Brooklyn, N. Y.; L. K. Paxson, of Lancaster, Pa.; Reuben Podolsky, of New York, N. Y.; J. G. Rapoport, of Philadelphia, Pa.; W. W. Rose, of Penn Grove; Robert Seiler, of Long Branch; Elias Shaker, of Poughkeepsie, N. Y.; G. H. Sleafator, of Atlantic City; T. R. Stephan, of Trenton; N. W. Teplitzky, of New York, N. Y.; W. E. Van Eerde, of Paterson; and B. R. Wagner, of Plainfield.

As assistants—Abraham Goldstein, Abraham Hailperin, E. J. Kaiser, and Oscar Singer, all of Newark; J. H. Barlow, of Highland Park; Solomon Lichtenstein, of Jersey

City; W. H. Richmond, of Trenton; and Irving Yudizky, of Orange.

The next meeting of the board will be held at Trenton, January 18th and 19th.

North Dakota Board.

The North Dakota Board of Pharmacy met at Fargo, October 17th to 19th, and examined twelve applicants for registration. The following seven were successful:

As pharmacists—Geo. Bergman, of Balfour; E. O. Larson, of Minot; S. A. Sjoblom, of Bismarck; and Andrew Teilgen, of Jamestown.

As assistants—A. J. Anderson, of Park River; F. W. Slawson, of Fargo; and J. E. Thro, of Annamoose.

The next meeting of the board will be held March 19th, at Fargo.

Pennsylvania Board.

Five Philadelphia dealers in photographic supplies have been arrested at the instance of the Pennsylvania Board of Pharmacy on a charge of failure to comply with the provisions of the law regulating the sale of poisons.

A druggist and his clerk of the same city were prosecuted by the board for the sale of a "catarrh-cure" nostrum alleged to contain cocaine.

Tennessee Board.

Of the sixteen applicants for registration examined by the Tennessee Board of Pharmacy at the meeting held October 17th to 19th, at Knoxville, but two were successful; these are:

C. F. Bird, of Adamsville, Ga.; and F. B. Reid, of Chicago, Ill.

The next meeting of the board will be held January 16th, at Nashville.

Utah Board.

At the meeting of the Utah Board of Pharmacy held October 17th and 18th, at Salt Lake, eight candidates for licensure were examined, the following two being successful:

A. C. Eddington, of Salt Lake; and Edward McCleary, of Ogden.

The following were registered under the reciprocal exchange of certificates with the boards of other States:

S. A. Denel, of Rock Springs, Wyo.; H. A. Isham, of Vernal; W. J. Roswear and George Schultz, both of Salt Lake; T. A. Shoemaker, of Manti; G. A. Solomon, of Ogden; and C. Wiswall, of Garland.

The board has offered a reward of \$200 for evidence that will lead to the conviction of the persons supplying narcotics to "bootlegging" pedlers. It was decided to petition the legislature for an act making the promiscuous possession of cocaine or morphine a misdemeanor.

The next meeting of the board will be held January 16th and 17th, at Salt Lake.

Washington Board.

The Washington Board of Pharmacy has reorganized and is now officered as follows: President, J. H. Closson, of Seattle; and secretary, James Lee, of Seattle. The other members are C. Ossewald, of Seattle; Peder Jensen, of Tacoma; and A. F. Maxwell, of Spokane.

New England Association of Boards.

A meeting of the New England Association of Boards of Pharmacy was held at Boston, November 20th, being devoted chiefly to the consideration of methods of regulating the practice of pharmacy. Officers were elected as follows: *President, D. F. Davis, of Barre, Vt.; vice-president, J. A. Pearce, of Providence, R. I.; and secretary-treasurer, F. W. Bucknam, of Skowhegan, Me.

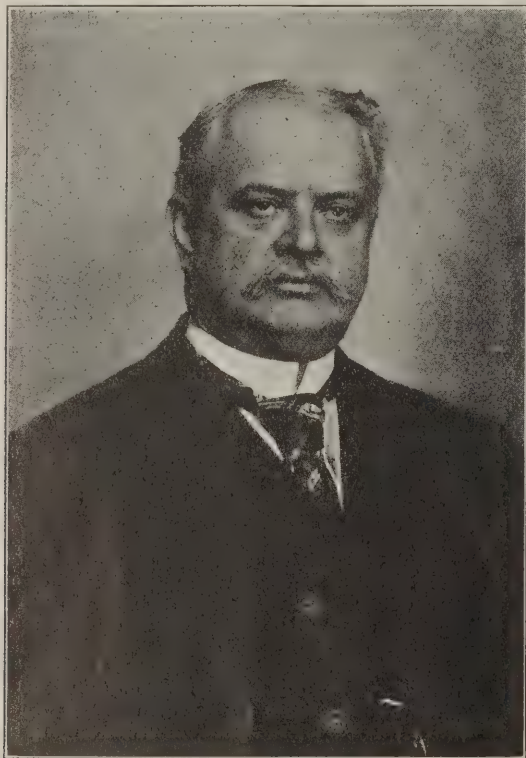
Food and Dairy Commissioner Barney, of Iowa, has incurred the wrath of the makers of stock foods in attempting to collect from each an annual tax of \$100. One concern has begun an injunction suit, alleging among other things that the law under which the commissioner acted is in conflict with the constitutions of the State and nation.

A press dispatch from Hudson, Me., under date of November 23d, tells of the death of two men from drinking wood naphtha.

Obituaries.

DR. WILLIAM MUIR.

Dr. William Muir died at his home, 356 First street, Brooklyn, November 24th, aged sixty-one years. Dr. Muir attended the annual meeting of the New York State Pharmaceutical Association held at Thousand Islands late in June and, as was his custom, began his regular summer vacation at the close of the meeting. It was while away from home in July that he became ill, and for months he had been suffering from the effects of pneumonia combined with cardiac disturbance. His passing takes from the ranks of pharmacists in Brooklyn their most aggressive and conspicuous leader, removes from membership in the New York State Pharmaceutical Association a man who devoted a large part of his time to solving its legislative problems, and will deprive the meetings of the National Association of Retail Druggists of one of their most striking figures. Perhaps no single man in the State



WILLIAM MUIR, PHAR. D.

had so wide a personal acquaintance with pharmacists, wholesale druggists, manufacturers, legislators and the publishers and editors of pharmaceutical journals: Dr. Muir was a perennial and indefatigable worker for pharmacy, and as he always seemed to have plenty of time, he did not carry on his campaigns for the various purposes he strove to accomplish through secretaries and correspondence, but by coming into direct personal touch with the men whom he desired to enlist in the causes for which he worked. He also met his opponents, of whom he had more than a few, face to face, being a fighter who could both give and take heavy blows in the open, but lacking in that finesse which enables one to win by subtle and artful means.

William Muir was born at Glasgow, Scotland, in July, 1850. When he was only a lad his parents came to this country and settled in Brooklyn, bringing him with them, of course. The boy went to the public schools and when ready to begin his practical business education, took a place in the drug store of Dr. J. D. Farwell, Joralemon and Court streets. He soon had progressed far enough to matriculate at the College of Pharmacy of the City of New York and, later, to receive his diploma from the hands of President George C. Close, of that institution, as one of the eleven members of the graduating class of 1870. About the time of his graduation his employer opened a store at Broadway and Fourth street, New York, and in this he worked for a considerable period of time.

Later he clerked for Charles W. Kitchen, at Fulton and Washington streets, Brooklyn, and for William Vincent, of the same city. In 1884 Mr. Muir went into business for himself at Bedford avenue and South Second street, Brooklyn. Two years later he moved to Broadway and Gates avenue where he remained until June 14th, 1898, when he sold the business to Harry Balzhizer. Since that time he had not been actively engaged in the drug business, it being understood that he retired with a competency.

Dr. Muir was always a strong organization man. As a young man he was one of the founders of the Alumni Association of the College of Pharmacy of the City of New York, and, according to a story once current, he was, more than any other one man, responsible for the formation of the Kings County Pharmaceutical Society. This is the story: In 1876 or '77 a movement was on foot to organize a 'German druggists' association, for social purposes, in Brooklyn. Mr. Muir heard of this plan, and also heard that the organization was expected to take place on the Thursday night of that week at a Brooklyn beer place. The young drug clerk immediately went to see Henry J. Menninger about the matter, Mr. Menninger at that time being very prominent in the affairs of the New York college. They made up their minds that they could benefit the college a great deal by organizing a Brooklyn association, so each bought a hundred postal cards and wrote to the Brooklyn pharmacists, Mr. Menninger to those in South Brooklyn, and Mr. Muir to the balance, asking them to come to a meeting the following Thursday night, at Zipp's beer place. Those who had been planning the German association, upon receiving the postals, thought, as the dates were the same, that the call was a part of their own plans, and that a change in the meeting place had been made. Nearly a hundred druggists were present. The name adopted was the Long Island Pharmaceutical Society. Gustav Ramsperger and William Vincent, both good New York college men, were elected president and vice-president, respectively. There was much talk at the meeting of taking some steps to have the New York city pharmacy law extended so as to cover Brooklyn, when a member arose and asked, "What's the matter with Brooklyn going on its own hook? Are we going to be tacked on to New York forever?"

So in July, 1879, the first Kings County Board of Pharmacy was organized. Dr. Muir became a member of that board in 1894, and remained in it until the Greater New York board, of which he was also a member, took its place in 1898. The latter board, in turn, gave way to the all-State board in 1901, and Dr. Muir was transferred to the latter. He remained a member of the State board until August 1st, 1910, when it went out of existence under the pharmacy law of that year, to be succeeded by one appointed by the regents of the State University. The State pharmaceutical association recommended Dr. Muir for appointment as a member of the new board, giving him next to the highest vote received by any of the twenty-five candidates whose names it presented to the regents. Dr. Muir did not receive the appointment, however, nor was he any more successful this year, when his name was again presented by the association for the regents' consideration. It has been suspected that the new law putting the appointment of board members into the hands of the regents was passed largely as the result of efforts made by those who desired to get Dr. Muir off the board and were unable to accomplish this purpose so long as pharmacists had the choosing of that body's membership. Dr. Muir was elected vice-president of the old board in 1908 and its president the following year.

But, to get back to the Kings county society, with which Dr. Muir was most intimately associated, it may be said that as the old leaders died or retired he came into more and more prominence, and in 1896 was elected its president, an office which he held one year. Perhaps one of the stormiest scenes ever witnessed in that society's rooms, if not in the rooms of any other pharmaceutical organization in this country, was enacted during Dr. Muir's incumbency of the presidential chair. Dr. R. G. Eccles had resigned as a member of the society on account of differences between him and Dr. Muir as to certain matters concerning the Brooklyn College of Pharmacy. He subsequently had asked to be allowed to withdraw his resignation, and warm debates as to the parliamentary status of the case had ensued. At the meeting held in November, 1896, there were present enough pro-Eccles men to have voted to reinstate the Doctor had the matter come to a ballot.

However, when a motion was made which would have tested the relative strengths of the two opposing factions, the chair, Dr. Muir, refused to put the motion before the house on the ground that it was out of order. An effort was made to get the point of order before the house on appeal from the chair, but the chair refused point-blank to countenance it. In the uproar which followed, a vice-president undertook to lay the appeal before the house, but unsuccessfully. He was later expelled from the society—but not ostensibly for his action on this occasion. Dr. Eccles and his majority left the meeting room after the session, whipped, and by one steadfast, iron-willed man who, evidently subscribing to the doctrine that necessity knows no law, and deeming the permanent exclusion of Dr. Eccles from membership in the society a necessity, had taken things in his own hands and won the day by his own immovability and dogged determination. From that time until the day of his death no one ever openly opposed the will of William Muir in matters pertaining to the conduct of the society or the college—those who were unwilling to be governed by his wishes simply staid away from the meetings or kept their own counsel. And, be it said to his credit, there is perhaps no stronger or better organized local pharmaceutical association in America to-day than the one which he did so much to build up.

Due to the incessant efforts of Dr. Muir more than to any other cause the Brooklyn College of Pharmacy, owned by the society, has grown from merely an idea twenty years ago to a large and flourishing institution owning a building and equipment valued at something like \$100,000. As a result of his labors the college, in 1897, gained legislative permission to grant the degree of doctor of pharmacy, and he was one of the first to receive it.

Dr. Muir joined the New York State Pharmaceutical Association in 1896, and made his influence therein felt so soon and so positively that he was a strong presidential possibility at the Manhattan Beach meeting held the following year. Fervid caucusses were held by those who did not wish to see him at the head of the organization, and to defeat him they secured the renomination—equivalent to an election—of President R. K. Smither, of Buffalo. Next year, at Rochester, Dr. Muir was elected without any considerable amount of opposition. He had always been a power to be reckoned with in the State meetings since he first appeared at them, and the amount of work he has accomplished for pharmacists in this State, principally as the actual or acting chairman of the association's legislative committee, will perhaps never be fully realized. As a token of their appreciation of his services in their behalf, the druggists of both his local organization and the State association have presented him with gold badges.

Dr. Muir was one of the founders of the National Association of Retail Druggists, having been a delegate to the organization meeting held at St. Louis in 1898, both from the New York State Pharmaceutical Association and the Kings County Pharmaceutical Society. He attended every meeting of the national association from the time of its organization up to and including that held last year, and while he was never honored with high office by that aggregation of his fellow druggists, he was always on hand at its sessions to do whatever he could to protect the interests he represented.

Dr. Muir joined the American Pharmaceutical Association in 1907, but did not take the interest in its meetings that he evinced in those of other pharmaceutical organizations of which he was a member. Perhaps it was a matter of temperament with him—perhaps the comparatively quiet and dignified manner in which the American Association conducts its meetings did not appeal to his love of strenuous action. But when the association wanted to raise money for its Procter fund, it selected Dr. Muir to look out for the New York territory. Indeed, raising funds was one of his specialties, whether the object was to entertain a State meeting at Brighton Beach, or some equally worthy cause.

The deceased is survived by a daughter, who usually accompanied him to the State and national meetings, and by a brother and a sister. He was a Mason and attended service at Plymouth Church (the old Beecher church), and funeral services were held first by his lodge at his late residence, and then at his place of worship.

A. K. FINLAY.

Alexander Kirkwood Finlay, of New Orleans, La., died October 20th, at the age of sixty-eight years. He was a

native of Ireland, and long a resident in the Crescent City. For many years he had a store at the corner of Camp and Julia streets, and later operated a prescription laboratory in the Medical Building on Baronne street. His reputation as a pharmacist was country-wide. He retired from active business ten years ago.

Mr. Finlay was a member of the first Louisiana Board of Pharmacy, serving on that body from 1888 to 1893, several years as president. He was one of the organizers and first vice-president of the Louisiana Pharmaceutical Association in 1882, and its president 1885-6. In 1883 he assisted in the organization of the National Retail Druggists' Association and was elected as a member of the first executive committee. Later he became a vice-president of the organization. Mr. Finlay was a life member of the American Pharmaceutical Association which he joined in 1883. He was elected to the presidency of the association in 1890.

J. W. PERKINS.

John W. Perkins, of New Rochelle, N. Y., died November 1st, aged ninety-one years. He was born at Weld, Me., and at the age of sixteen went with his parents to Farmington where he became an apprentice in pharmacy. In 1840 he went into business for himself, removing in 1852 to Portland where the business was continued under the firm name of John W. Perkins Company. He retained the presidency of this company which developed a wholesale business, but retired from active commercial life in 1895, taking up his residence at Elmira, N. Y. He removed to New Rochelle ten years ago.

Mr. Perkins was a prominent Mason, being a Past Grand Eminent Commander. He is survived by his second wife and two daughters.

WALTER WYMAN, M. D.

Dr. Walter Wyman, surgeon-general of the United States public health and marine-hospital service, died November 21st, aged sixty-three years. He was a native of St. Louis, Mo., and had been in the marine-hospital service thirty-five years. He was appointed surgeon-general nine years ago. He was graduated with a bachelor's degree by Amherst, and took his medical degree at the St. Louis Medical College in 1873.

J. F. COWEE.

James Farwell Cowee, of Troy, N. Y., died October 31st, aged sixty-seven years. He was a native of Troy, the son of a member of the firm of John L. Thompson & Sons Company, and became druggist for that firm in 1864. Five years later he was admitted as a member of the firm and at the time of his death, was its president.

The following are the recently reported deaths of other persons in the drug world:

WILLIAM C. BISHOP, formerly of Omaha, Neb., at Long Pine, November 5th, aged fifty years.

F. F. BRIDGEWATER, of Raritan, N. J., at Somerville, November 14th, aged fifty-five years.

MOSES H. BUCHANON, of Nashville, Tenn., at El Paso, Tex., October 22d, aged thirty-five years.

Dr. ROBERT D. DASHIELL, of Princess Anne, Md., at Salisbury, November 11th, aged sixty-one years.

EDMUND ENTWISLE, formerly of Washington, D. C., at Wakefield, Va., November 11th, aged forty-five years.

HENRY N. FENDERICH, of Pittsburgh, Pa., November 8th, aged sixty-six years.

WILLIAM GILBERT FOWLER, of Brooklyn, N. Y., November 10th, aged sixty-two years.

DAVID HARPSTER, of Toledo, Ohio, November 17th, aged seventy-four years.

GUSTAVE HEERBRANDT, of Brooklyn, October 29th, aged sixty-four years.

CLAY C. LEEK, of Terre Haute, Ind., October 25th, aged sixty-seven years.

Dr. H. YERKES LONGACRE, of St. Charles, Ill., October 19th.

D. K. MAYES, of Tulsa, Okla., October 17th.

CLIFFORD AUGUSTUS POUCHER, of Brooklyn, N. Y., November 19th, aged twenty-nine years.

CORNELIUS J. ROTH, of Detroit, Mich., October 24th, aged twenty-nine years.

L. C. RUCKER, of Hugo, Okla., November 10th.

THEODORE RUNGE, of Tri-Cities, Mo., October 20th, aged thirty-five years.

JOSEPH MAX SCHMITT, of Rochester, N. Y., October 23d, aged fifty-seven years.

CHARLES H. STEIN, of Brooklyn, N. Y., November 9th, aged forty-six years.

EBENEZER THOMPSON, of Georgetown, Ky., November 4th.

CHARLES W. WARD, of Rutland, Vt., November 16th.

GEORGE WILCOX, of Braddock, Pa., October 22d, aged thirty-eight years.

JAMES WOOD, of Brooklyn, N. Y., November 4th, aged eighty-seven years.

Mrs. Kate Kellogg Merrell, widow of the founder of the J. S. Merrell Drug Company, of St.-Louis, died in that city, October 25th, aged eighty-four years.

Author of the Coudry Bill in Trouble.

Harry M. Coudry was arrested in this city in November on a charge that he had used the United States mails for fraudulent purposes in connection with some insurance scheme. He was taken to St. Louis, where he gave bail.

Mr. Coudry was formerly a member of congress, in which capacity he distinguished himself by introducing the most absurdly worded bill, perhaps, that ever got into print, calling upon the United States government to publish the Pharmacopœia. The CIRCULAR had something to say about him at the time (see the issue for February, 1910, page 49), and called attention to the fact that he was president of the company which made labordine, a "purely vegetable antipyretic" prior to the passage of the law against lying on the label, and an acetanilide mixture after that mislabeling statute came into effect.

New Stores.

Following are recently reported new ventures into the retail drug business:

Charles Silvers, at Portland, Ind.

Mr. Fink, at Woodcliff, N. J.

G. C. Hendricks, at Allentown, Pa.

The Rowe Drug Company, at Baldwin, Kan.

The Winship Drug Company, at Mansfield, Mass.

The Auclairs, at Norwich, Conn.

Brewster & Whitney, at Corinna, Me.

Mrs. Mary Jerome, at East Islip, N. Y.

C. E. Robinson, at Charles City, La.

J. H. Coutourier, at Covington, La.

James & Darden, at Gainesville, Ga.

N. G. Landon, at Parksville, Conn.

H. J. Fisher, at Holland, Mich.

I. M. Hodgkins, at South Connellsville, Pa.

Mr. Dawson, at Beallsville, Pa.

Adin French, at Peabody, Mass.

Powell & Smith, at Millville, N. J.

Bradford & Meadows, at Columbus, Ga.

L. W. Hensyl, at Shamokin, Pa.

Green & Clapp, at Northampton, Mass.

When Legislatures Meet.

To paraphrase the Farmers' Almanac: About this time begin to watch for legislative activity; hence the usefulness of the following time-table of approaching legislative sessions:

Congress: December 4th.

Georgia: June 26th.

Kentucky: January 1st.

Louisiana: May —.

Maryland: January 3d.

Massachusetts: January 3d.

Mississippi: January 2d.

New Jersey: January 9th.

New York: January 2d.

Rhode Island: January 2d.

South Carolina: January 9th.

Virginia: January 10th.

He (coaching his nerve): "Miss Comeleigh, may I call you Alice?" She (waiting): "I suppose you may if you really wish to, only—my name is Gladys."—A waif.

Philadelphia Association.

At the November meeting of the Philadelphia Association of Retail Druggists a set of resolutions were adopted memorializing the mayor-elect in behalf of the appointment of a pharmacist as a member of the municipal board of health.

Another resolution addressed to Governor Tener was in support of the candidacy of L. L. Walton, of Williamsport, for reappointment as a member of the Pennsylvania Board of Pharmacy.

A very interesting discussion grew out of the reading of the report of the committee on commercial interests. The consensus was that apparently clerks were not sufficiently familiar with the prices of drugs and pharmaceuticals, and that consequently they were not qualified to price prescriptions. It was declared that in many instances proprietors were also lacking in this knowledge, and that it was partly due to this fact that so many drug stores were simply eking out an existence. Stores of this class, it was declared, were not only worthless to the owners, but detrimental to more up-to-date business men who were injured by the ruinous prices charged by others who did not know the cost of the ingredients in prescriptions.

A feeling prevails that the association should open an office in the wholesale district of the city, for the use of the secretary, that official to combine the duties of the recording secretary, the financial secretary, and the organizer. This question of changing the official family is still a moot one.

It is announced that for the other offices the nominating committee has selected the following candidates: President, Christopher Koch and D. J. Reese; vice-presidents, W. E. Lee, A. G. Keller, and Samuel Laskin; treasurer, G. W. Fehr; executive committee, W. A. Carpenter, F. R. Keller, W. E. Cline, H. L. Hetrick, Ambrose Hunsberger, G. T. Lambert, O. W. Sellers, Charles Leedom, C. W. Lindig, M. D. Allen, R. T. Blackwood, L. A. Dresbach, and F. S. Day.

Ownership of the Prescription.

Here is a prescription for a draft for my husband, says the lady customer; kindly renew at once; it is urgent. Impossible, madame, replies the urbane but conscientious pharmacist. The prescription is dated yesterday, and has already been executed. But I met the doctor just now at his own door, and he said, "Continue the potion." A verbal prescription! H'm! Madame, I'm afraid that can hardly suffice. Risky, very risky. But my husband has a bad attack, and the doctor is away until to-morrow. That is his right. Then why did you stamp this paper and return it to me? Because it is your property. My property! And of what use is it to me, then? It has, madame, a purely historical value. You might have it framed. Your bridal wreath is your property, but how religiously you preserve it under a glass case! You use it no longer—yet it is yours. This prescription comes under the same category.—From the French.

National Association of Pharmacologists.

At a meeting of the executive board of the National Association of Pharmacologists held October 31st, a resolution was passed asking for suggestions for a new name for the organization that would be better indicative of the calling of drug clerks who constitute its membership.

Another resolution called upon every drug clerk in the country to work for better conditions for drug-store employer and employee.

Communications were received from the governors of twenty-two States commending the association's work for the appointment of clerks as members of boards of pharmacy.

Some five years ago a South Dakota bank cashier, who occasionally dabbled in chemistry, began to place each night a bottle of solution of formaldehyde between the doors of the bank vault. Recently his ingenuity was rewarded, for the fumes of the liquid repulsed a pair of cracksmen who had blown the safe—and also the bottle—with nitroglycerin.

The pharmacopœia committee of the General Medical Council of Great Britain has appointed Dr. Nestor I. Tirard and Prof. Henry G. Greenish as editors to supervise the work of preparing a revised edition of the British Pharmacopœia.



DRUG STORE MERCHANDISING

Booming Business by Bulletin.

Old-Time Bulletin Boards Almost Out of Date, but There Is a Large and Fertile Field for Some Improved Styles—Hints and Suggestions About Making Them.

BY VICTOR LAURISTON.

Have you, Mr. Druggist, ever used the bulletin board as a business getter?

The bulletin board isn't entirely a new idea; but in its most profitable phases it is new. It is to the window display what a store paper is to regular advertising.

THE OLD-TIME KIND.

Visit any country store—and, for that matter, some city stores on back streets—and you'll find the original bulletin board. It is a double blackboard, hinged at the top, standing on the sidewalk in front of the store, shaped like the letter A. On each face is chalked a badly blurred and rather indistinct list of "special bargains." The writing may be fresh, or may have braved the weather for weeks.

This is the original bulletin board, still popular with small grocery stores, and frequently seen in front of city free-lunch emporiums. Traffic regulations in larger centers have tended to put the sidewalk bulletin out of existence.

In some stores where there is plenty of outside wall space the blackboard is nailed to the wall, or attached to a corner pillar. Sometimes it stands in the doorway. There is this advantage about the blackboard bulletin: comparatively little labor is required to change an item on it—just a trifle of elbow grease, a rub or two with a cloth, a minute's scratching of the chalk, and combs can be converted into cigars, or curry powder into cod liver oil. But, on the other hand, there is the probability that the blackboard will not stand the stress of wet or even windy weather; the writing in the best of weather rapidly becomes indistinct; and when, with age, the blackboard turns gray, there is little contrast between the writing itself and the background, so that the "specials" on it do not show up as well as all good "specials" should.

BULLETINS ARE FOR SPECIALS.

The bulletin has a theory behind it. Most merchants never think of the theory, but it is much the same as the theory which causes the newspaper publisher to paste up in the window the startling announcement of the murder which has just occurred. "Get the news to the public at

once" is the axiom of the newspaper man, and "Get the news of bargains to the buyers at once" is the principle behind the store bulletin board. Theoretically, the store bulletin corresponds to the "extra" issued by the newspaper. It supplements the trade news contained in the regular newspaper advertisement and in the more carefully prepared window display.

So that when the druggist posts up a business bulletin, he is doing it in order to call attention to something special, which he hasn't had time to announce through his regular mediums of publicity.

Following the newspaper idea pretty closely is the pasting of special announcements in the window. Thus, a telegram announcing a large shipment of some special line of goods, together with the prospective date of arrival, is often pasted up. Or, when Saturday specials are announced in Friday's paper, the advertisement is clipped out and a copy pasted in each show window.

BULLETINS BY CARDS.

One rather attractive bulletin idea was the pasting of a row of cards in the show window, horizontally, on or a little above the level of the eye. Each card referred to some seasonable article, giving a few words of explanation, together with the price. The cards did not interfere with the view of the regular window display. Even at that, however, they probably did a little toward spoiling the effect; though in cases where such bulletins deal with the lines featured in the window display itself they prove helpful to the latter.

With such bulletins there is always to be considered the added work of cleaning the windows afterward. Occasionally the "stickers" used in affixing them may be difficult to remove.

BULLETINS A LA NEWSPAPER.

Probably the best and most effective bulletin system is one closely modeled upon the news bulletins used by the big dailies in our large cities. Outside the newspaper offices commodious bulletin boards are erected, or bulletin frames constructed. The boards are covered with white paper, and on this a brief summary of each important item is written as it comes in over the wires. In some cases the bulletin is written on a sheet of paper in the office and afterward pasted on the board. In other cases a series of separate boards is used, each about a foot square, with hooks attached; and these, with bulletins written on them, are hung in the frames.

Adapted to trading purposes, this system usually takes the form of a large bulletin board, usually attached (vertically) to the corner of the store, or to a pillar at the en-

trance. One or more such boards may be used. On this board are pasted announcements of new lines of goods just received, or notices calling attention to special lines of stock. The average-sized bulletin board will give room for from six to a dozen announcements, the number depending upon the size of the lettering. These items can be changed whenever desired, and should be changed frequently.

WRITING THE ANNOUNCEMENTS.

White paper, with red or blue ink, should be used, the most convenient method being to write the posters first and paste them up afterward. The writing is best done in vertical, legible letters, without any attempt whatever at ornament or flourishes. The changing of the bulletins is rendered more convenient by having all the sheets used of the same size, so that any one may be removed or pasted over without disturbing the others. The sheets need not be large. A letter-size sheet for each bulletin is usually sufficient. The main thing is to have legible writing. The presence of the bulletin board in a prominent position, coupled with the words "extra" or "special" at the top of the column in flaring letters, is a sufficient invitation to the passerby to stop and take a closer look at the smaller-lettered announcements. Most people will form the habit of halting for a glance at the bulletin, which thus becomes a cheap but valuable medium of publicity.

Here and there, instead of a board with pasted bulletins, a slide system is used. The board takes the form of a frame, with spaces into which cards may be inserted. This is a quicker method, and saves the work of constant pasting, though, unless the frame is well constructed, there is danger that the cards will be dislodged. The higher price of stiff cardboard also merits consideration.

WHAT TO SAY ON BULLETINS.

What is to be bulletined? For one thing, the bulletin man should not tie himself down to mere prices. He should never forget the price, but should not make it the sole feature. This applies to every form of bulletin, whether written on a blackboard or stuck in a widow or pasted on a board.

An entire sheet of paper should be used for each article featured. Each article should be introduced with a catchy, descriptive, epigrammatic phrase, emphasizing some worthwhile selling point, and wind up with the price. Practice and mental effort will give one the knack of "hitting off" the good qualities of a new line of combs in ten or fifteen words, or arguing convincingly regarding a Saturday cigar special in the same limited space. If an important shipment has just arrived, attention should be called to that fact. If some line is moving too slowly, it may be jacked up with a few terse but effective words on the bulletin board. For not only is the bulletin board an effective means of introducing new goods, but it is a splendid method of waking the slow sellers into new life.

In short, the bulletin board should be a vehicle for carrying to the public at the earliest possible moment the newsy news of one's business. It does not take the place of newspaper advertising or of a window display, but it supplements both. News value—from a business point of view—should be the vital essential of every bulletin posted.

THE BULLETIN BOARD AT NIGHT.

As a rule, the bulletin board at night is put out of commission by the darkness, and this at the very time when crowds are thickest upon the streets. An incandescent bulb, properly shaded and protected, at the head of the board, will remedy this difficulty at slight additional expense.

Does the bulletin system pay? Well, that depends largely upon the amount of brains mixed with the paste and ink and paper. The well-written bulletin, like the well-written show card and the well-written newspaper advertisement, is always a business getter. The striking bulletin board—the one which is gotten up with some novelty—is bound to attract attention, anyway. It is still a new and exceptional thing, and for that reason, if for no other, it invites the passerby to stop a moment and take a closer look.

What a lovely calling the drug business would be if there were no such thing as "dead stock." Dead stock, like other dead things should be disposed of. The wise dealer finds some way to get shut of it—ask the successful department store proprietor.

Shaving Supplies a Profitable Side Line.

How to Buy, Display, Advertise and Sell Them Told by
a Man Who Knows Because He Has Demonstrated the Efficiency of His
Methods.

By ROBERT RECTOR.

In these days of sharp competition most druggists are forced to rely, to a great extent, on side lines as profit producers. Naturally the question arises, Which side lines are the most profitable?

Our experience has been that a well-selected line of shaving supplies allows more opportunities for sales, and pays better than any of the various lines we carry.

Brother druggists, just look at the field. Practically every man that enters the store is a "prospect." Go after him. Don't wait for him to ask about your goods. Suggest! Suggest! Maybe he doesn't need a new razor, but when you mention razors it reminds him that his old brush is shedding and a new one is in order.

Has he tried the new shaving creams that are being so highly advertised? No, but he has been thinking of doing so, as they seem more convenient than the old-fashioned mug. Perhaps he has a strop, but you can interest him in one of the new "honing strops" that give a keen edge with two or three strokes of the razor.

He may say that he "never could handle a razor." He is the man that will buy a "safety." Explain that with one of these tools, he couldn't cut himself if he tried, and that with a little practice he can shave himself with the skill and ease of an expert. Let him know that he can always get new blades at your store when he needs them, and call his attention to the new automatic stropper, that quickly puts a new edge on old blades. No skill is required to use it and it is more economical for him to sharpen the blades himself. After shaving he will need a bottle of your face lotion; and most shavers use talcum too.

We get behind this line strong. Except during the busy hours, we mention the line to nearly every man we serve, and it would surprise many druggists to know the number of sales that can be picked up merely by calling attention to the line when handing the customer his change.

We employ four clerks in our store. In one day, alone, we sold twenty of the \$1 safety razors, and several of the buyers took along complete outfits.

As it is an easy matter to gain the attention of a woman by showing her an article designed to beautify her, so also are most men interested in anything that will add to their shaving comfort. They are glad to have their attention called to the new articles that are constantly coming out. If tact is used, very few men will resent the druggist's efforts to make a sale. Show the goods, talk them intelligently, and suggest that the customer try them, but never "tease" him to buy.

Give a front show case to the line and if you carry newspaper space, give the line an occasional ad. The different manufacturers are always glad to furnish free electrotypes.

Handle standard goods only and make a specialty of the new advertised articles as they are put on the market. Handling the new things never fails to give a store prestige.

We make a profit of 100 per cent. on all old style razors, sell them under a guarantee, and replace any that are unsatisfactory. The makers in turn stand behind us. Safety razors, while not so profitable, pay well. The popular \$1 kind are more easily sold, of course, than the \$5 brands, but a goodly number of the higher-priced ones are also sold. The sale of extra blades, too, is quite an item.

We try to handle a complete line of accessories, such as strops, shaving soaps, powders and creams; brushes, mirrors, mugs, hones, automatic stroppers, lotions, etc. We have a splendid trade on the entire line and attribute our success to the enthusiasm we have enlisted among our sales force.

The drug store is the logical place for this line and any druggist with push and energy can do well with it.

Automatic stamp-vending machines ought to do much toward solving a problem which has confronted the druggists of two or three generations.

Holiday Advertising.

The Holiday Buyer Is a Fertile Field for the Advertiser—Druggists Have Scores of Gift-Potentialities in Stock—Some Hints Anent Advertising Particular Lines.

By M. P. GOULD.

There is no other time during the year when so much attention is paid to retail advertising as during the holiday season. Therefore, it behooves every progressive druggist to stretch his advertising appropriation to the limit during the month of December in announcing all seasonable wares to prospective customers.

In advertising Christmas goods, it is well not to overlook the fact that other goods than gifts are sold during December; and it should be the purpose of every retail druggist to take advantage of this and to see that his advertising during December produces sales for his regular stock as well as his special Christmas goods.

There is no time so advantageous to advertising as the time when the public is buying. It is a funny thing, but nevertheless, it is true, that when men or women get in the habit of buying, they purchase goods which they would not think of purchasing at any other time. My attention has been called very frequently and forcibly to this fact by retail druggists who have had opening and anniversary celebrations. When such celebrations are had, the druggist usually spends considerable money in advertising, in decorating his store and in other features, which bring great crowds of people to his store. And I have had letter after letter from such druggists telling me that it was surprising the amount of old stock which was sold; that the celebration afforded an opportunity to dispose of goods of a sort not before sold for years. This is one of the reasons many druggists who have had a big anniversary or opening celebration usually conduct a similar affair annually thereafter.

During the holiday season every retailer who has holiday goods for sale, and practically every retail druggist does have such goods, should produce advertising of a character that will arouse enthusiasm. He should word his advertising in a way to give the impression that the holiday season is a great big gala festival of Christmas goods buying. In other words, he should endeavor to create the impression in the minds of the people that there should be only one purpose during the holiday season and that purpose should be to buy, buy, buy.

THE SELLING PLAN MUST JIBE WITH THE ADVERTISING.

No matter what the advertising is, what the plan is or the exact style of copy used to carry out the plan, it will not be successful in a big way without the most careful co-operation on the part of the entire store. Not simply co-operative efforts by the proprietor, but co-operation on the part of every man or woman in the store. The window trims must co-operate with the advertising. The show case displays must assist along the same lines. Show cards should be used in the windows and in every available corner of the store—cards as forcibly written as it is possible to write them. They should be made to advertise the goods which are displayed and these goods in turn should be the same goods, as far as possible, which are advertised.

It is easy to see where the advantages of co-operation come in. Suppose a customer, reading the announcement of Christmas goods, the advertising of various goods in the store, comes to the store and asks for certain goods and finds that the clerk is almost totally ignorant of those goods; or another, seeing special prices quoted for

certain goods comes to the store and finds that the clerk not only knows nothing of these prices, but when told that the goods were so advertised, looks embarrassed and must consult the proprietor while the customer waits—perhaps. This is a good illustration of much of the waste in advertising which goes on day after day in the drug store simply because careful co-operation is not practiced. Compare a customer's valuation of a store's service in such a case as this with that based on a visit to another store where the goods advertised are displayed prominently on the show cases and on the counters, with show cards bearing exactly the same prices as are indicated in the advertising. Compare the first store with the store where the clerks are all familiar with the prices and advertising which has gone to the prospective customer. In the latter case, the customer leaves the store satisfied; leaves the store feeling that it is a modern store; that it is endeavoring to serve its customers in an intelligent way. A good impression has been created; whereas in the case first mentioned the advertising is practically of no value except in the individual sale which perhaps has been accomplished.

In the first mentioned case, the customer probably finds what she goes after, but the chances are that she buys nothing else. In the other case, she is so well pleased with the entire atmosphere of Christmas buying that she is very liable to shop around from table to table and from show case to show case, and doubtless will leave the store with many more purchases than she intended to make when she came in.

ADVERTISING METHODS.

It is unnecessary in this article to go into the various ways of advertising a store at Christmas time. Every druggist who has the interests of his business at heart has studied the question of advertising. He knows the method of advertising which in his individual locality produces business better than any other method. When the holiday

Our Old Friend Santa

With a Full Pack

of the cleverest gifts for every member of the family—and friends.

Here they are—galore: the largest stock of sure-to-be-appreciated Xmas gifts we ever carried. Good gifts, new, original, suitable and pleasurable—gifts you can give knowing they will be appreciated—gifts of the sort you hope to receive.

We cannot name them all here—come and see for yourself. Don't put one item on your list until your eyes have appraised our stock.

For Example:

Father Wants—
Shaving Goods
Cigars
Pipe
Cutlery

Give Mother—
Perfumes
Candies
Stationery
Toilet Articles

(Name and address)

season comes around and he has loads and loads of goods in his store which he wishes to get off his hands, he naturally turns to the advertising methods which past experience has taught him are the most successful. In some local-

ities it is newspaper advertising; in other localities, the druggist has learned that he cannot depend exclusively on his newspaper space, but must have something which works with it, so he divides his appropriation, one-half for newspaper advertising and one-half for good, big, business-like circulars. These circulars he distributes throughout his locality at the time his advertising is appearing in the newspapers, and in this way he hits two blows at the same time. Again, there is a chance that the druggist is so located that he cannot possibly get the benefit from more than one-half or perhaps only one-third of the circulation of the newspaper; and in some cases he finds it useless to depend upon the newspaper. The space costs him entirely too much money for the proportion of circulation advantageous to him. He has learned from experience that circulars will produce results; not ordinary circulars such as he might distribute during the month of July or the month of October, but good, big, beautiful, happy Christmas circulars whose theme is holiday buying. Other druggists possibly rely upon circular letters, but circular letters at Christmas time cannot answer the purpose. Such advertising may do for certain goods at certain times of the year, but the buying public demands more life in advertising at Christmas time. The druggist depending upon letter advertising during the holiday season is not liable to get any great results from his advertising.

ONE VERY SUCCESSFUL WAY OF SELLING CHRISTMAS CANDY.

One successful retail druggist, a good old friend of mine, located in a town in eastern Pennsylvania, for many years has used the plan outlined below for advertising Christmas candy, and from the very fact that he has kept to it year after year for the past decade, is proof enough to me that the plan is successful; therefore I am going to make you acquainted with it.

Instead of advertising candy in the newspapers (which by the way he uses regularly) he used a very tasteful

and appropriate folder. This folder is mailed to all of his customers in the first two weeks of December. It announces the fact that he will take orders for candy to be delivered at any time the customer indicates.

He advises that the delivery be made the day before Christmas. The reason given to his customers for his taking orders in advance is a splendid one. It is that he files all of these orders, and at the last moment rushes an order for the total assortment by wire to the manufacturer; and the candy is shipped directly by the manufacturer to his store and immediately delivered to his customers. By so doing, he insures to his customers the very freshest candy that can be obtained. He informs his customers that the candy can be had in one-pound, two-, three-, or five-pound packages. As the candy that he advertises is an expensive brand, and as the orders which he receives are enormous, it is easy to see that his profits on Christmas candy are large.

Of course the sending out of this circular not only influences orders for his Christmas candy, but it stimulates the sale of all his candy during the month of December. The handling of candy in this way makes his store headquarters for the better grades of candy during the entire year from one Christmas to another. It certainly is an excellent method of advertising; and it most certainly is a method which must please his customers. It is a plan which would be hard to improve upon and a plan which I certainly should suggest to any druggist who is desirous of increasing his candy business and getting a reputation as the store from which the highest class candy can be secured.

PHOTOGRAPHIC ADVERTISING.

One retail druggist whom I have in mind has been very successful in creating an enormous camera and photo-supply business. His methods are rather unique. He advertises that if any person who is thinking of purchasing a camera, and is not acquainted with picture taking, will notify him to that effect, he will send a representative to call at that person's home with a camera and accessories to teach the prospective customer how to take and make pictures, exterior, interior and por-

PERFUMES

MAKE Rich, dainty, true
FINE flower odors—
GIFTS Nature's treasures
encased in crystal.

Perfumes make excellent gifts to anybody anytime.

Their daintiness appeals to the fastidious.

Their usefulness makes them gifts that last.

Their distinctiveness is demanded by "moderns."

Put perfumes on your list and rest assured you have done right.

Here's a very large line in rich packages for gifts—the fullest perfection in odors and a bottle that adds to their "fancy."

Cheap enough to give liberally.

Good enough to give anybody.

(Name and address)

TURKEY FIXIN'S

(GOOD FOR GOOSE, TOO)

Sage
Savory
Thyme
Mint

A HAPPY event should the Christmas Dinner be. If you want to make it so, take extra care with the cooking—and let pure *drug-store* spices help. Herbs and spices, currys and condiments—you can get any of them here, and the genuine *drug-store* quality, too. Our spices are selected with all the care we exercise in buying our drugs and chemicals, our one desire being to assure pungency, freshness and purity. They will give a "taste" to that turkey and pudding that your guests will appreciate.

(Name and address)

Ginger
Cloves
Pepper
Allspice

Early Christmas Shoppers get the cream of the selection

THE early buyer gets the choice. Christmas gifts you surely will give—and it is better to give appreciated, acceptable gifts. Such gifts you can get by selecting from our big stocks early, before the dilatory Xmas crowd comes shopping in a last-day hurry.

(Name and address)

traits. Instruction will be given in the developing of negatives, and prints from those made will be submitted to the prospective customer before he is asked to place the order for the camera. Many druggists would not care to go to this trouble, yet it is usually trouble (if you wish it to go by that name) of this sort that creates the good impression with the customer and in the long run makes a drug store the neighborhood headquarters for cameras and camera supplies. There are very few plans at all worth trying which are not worth trying well.

Whether this kind of a plan or some other is used, it is well for every retail druggist handling cameras and photo-supplies to remember that there is no Christmas gift which is quite so much appreciated or so acceptable as a nice photographic outfit. And as there is good profit in this side line, it certainly is advisable to advertise it during the holiday season.

CHRISTMAS PERFUMES.

It is not necessary to call the retailer's attention to the advisability of advertising perfumes, for every druggist who carries a line of perfumes usually has an additional Christmas line to be disposed of, and as the perfume line is one of the old Christmas standbys, the retail druggists long ago have realized the importance of advertising it. There is one point, however, which I wish to bring out as forcibly as I can while I have the opportunity to do so.

In some cities of America the perfume business has been taken almost entirely out of the hands of the retail druggists. In these cities the department store is every day becoming more and more the place where the great bulk of perfume and toilet articles are sold; yet only a few years ago practically the entire output to such articles was through the retail drug store. It is sad to think that this change has come about. It would not have come about so quickly or so thoroughly if the druggists had paid more attention to the stock they carried and to methods of advertising the stock to their customers. There are other lines which are fast following the perfume line. It follows that the way in which the druggist conducts his business and advertising has much to do with whether the department stores will be successful in winning away the trade in these lines also.

Every retail druggist reading this article should make up his mind that from this time on he is going to do everything in his power in the way of advertising, in the way of selecting, displaying, and selling his wares, to prevent any of his trade from being attracted to the department stores. This is a big problem, but it is a problem well worth solving, and the sooner it is solved, the better it will be for the retail drug trade in every community and for the drug trade in general.

CHRISTMAS CIGARS.

Women often say that they are puzzled when it comes to purchasing Christmas gifts for men. It is not so hard for women to purchase gifts for the men of their own families, although this is not an easy task, but it is difficult for women to purchase gifts for men who are friends; and suggestions are always welcomed. Every woman, whether she is young or old, knows that there is no gift which is

more appreciated by a smoker than a box of good cigars; still she is puzzled for she does not really know the brands of good cigars. So active have been the joke-smiths with the woman-selected-cigars theme that many women do not care to make a present of cigars unless positively assured that the cigars are good; in other words, that they will be appreciated by the person receiving them.

An Easy-Operating Picture Taker Is a Gift Worth Having

From one dollar to a hundred for a camera for everybody, baby to grandpa. An easy-operating, "a-child-can-do-it" camera gives a pleasure never reached with any other gift, be it a toy or a utility.

There is such a range of sizes and prices—all perfect picture takers—that you can afford to give cameras the preference in gifts.

Come; see one work; see the pleasing results, and the ease with which you get them—and then make a prominent place on your gift list for cameras.

**CAMERAS
PLATES
FILMS
CHEMICALS**

If the "kid" owns a camera give him a gift of supplies—from our stock.

Buy a camera for yourself and enjoy a new phase of life.

(Name and address)

Druggists are acquainted with cigars. They know the good brands and the poor brands. It is a simple and inexpensive plan of advertising to get out a nice little holiday-suggestion folder and mail it to every woman in the store's territory—especially the young women, the entire folder to be devoted to cigars. The recipients should be informed that if they have any friends who are smokers to whom they would like to present a box of cigars, the druggist, having been acquainted with the facts will assist in every way possible to see that the man gets his favorite brand of "smokes." A folder of this kind, worded carefully, would undoubtedly produce a good impression and would sell many boxes of cigars. Not only would it sell cigars to the women to whom it was addressed, but in cases where there were men in the family, the folder would prove a good general advertisement for the cigar department, and would undoubtedly do that department an amount of good.

STATIONERY.

Fountain pens, ornate pen holders, papeteries and desk sets are articles which are sure to be appreciated as gifts. They can be advertised in the newspapers, or with circulars or folders.

The value of a great deal of Christmas advertising of this kind is the suggestion. As many men and many women have numerous people whom they wish to remember, suggestions are always welcomed, as it is much easier to select the gifts when one is at home than it is after arriving at the store.

BRUSHES.

Brushes, like perfumes, are one of the old standby lines which are very popular during the holiday season. They are easy to advertise, easy to display in the windows, and make an attractive showing in the show cases. The druggist has the opportunity of selling high-priced brushes at Christmas time; their appearance places them far above the cheap sort in desirability as a gift.

At Christmas time salesmanship counts for more than at any other time of the year. It is an easy matter for a real salesman to switch a buyer from a cheap article to a higher-priced kind; and of course no salesman should lose an opportunity to do this.

Advertising of brushes is a simple matter, when one keeps in mind the fact that brushes are very popular as Christmas gifts. There are many buyers who are interested in brushes who have already put them on their memorandum list as suitable for certain persons. Therefore, it is advisable that druggists put forth considerable effort in advertising his line of brushes to his clientele.

The *Chicago Tribune* has established a department of public health in charge of W. A. Evans, M. S., M. D., LL.D., P. H. D., former health commissioner of Chicago. In the announcement the public is told that the aims of the department are preventive not curative and that developed disease, justly and wisely, must be handled by the family physician. Right living will be the slogan in this new phase of newspaper activity which is a commendable departure from the usual exploiting of "prescription" nostrums and family-medical-adviser book learning.

Prof. F. X. Moerk, of the Philadelphia College of Pharmacy, has been appointed assistant dean of that institution.

Druggists to Aid Each Other.

There is no use in talking about it, constructive co-operation is fast displacing destructive competition.

For the purpose of getting better acquainted with each other and engendering a neighborly spirit of helpfulness, a number of suburban druggists in the Orange section of New Jersey met at the house of Garrett Byrnes, Maplewood, one evening about the middle of November.

"The changing conditions confronting suburban druggists," said Mr. Byrnes to a representative of the CIRCULAR, "make it imperative that we become better business men, giving much more attention to the merchandising of our goods than heretofore, and this we must do without expense to the quality of our professional work."

Continuing, he said: "How shall we do it? That is one serious and perhaps vital question for our organization to answer. I feel sure we shall find the solution. We shall probably hold two meetings each month, one for the consideration of professional matters and one for the discussion of trade topics. Our idea is not to attract a large number of druggists and have an unwieldy body; merely a drug circle of neighboring pharmacists is desired. Mutual helpfulness is more desired than a large number of names."

Maybe these changing conditions will cause druggists in other neighborhoods to get together for mutual assistance, and thus be a means of helping rather than hurting the business of the small stores.

It's a "Merry Xmas" to everybody who gets

A BOX OF

OUR CHOCOLATES

STOP your worrying—quit the bother—put "Chocolates" against every name on your gift list and you are bound to "hit it right." Everybody says "thanks" for chocolates. Chocolates? Give our chocolates in their pretty Xmas boxes and make somebody, everybody happy.

We do not carry them in stock but order them direct from the factory — on Christmas morn your candy gifts are presented "one-day fresh."
 I Won't "She" appreciate that kind of a "Merry Xmas"?

Candies for your choice.

Fresh from the factory; you take no chances. They have not lain around our store a month. Give candy, and avoid doubt. Give candy and win the appreciation of the recipient. Give candy—and buy a box for yourself.

(Name and address)

Musical Merchandise as a Side Line.

When wondering what side line he will put in to help him pay rent and clerk hire, or to defray part of the expense for gasoline and new tires for his whiz-wagon, the druggist might do worse than consider musical merchandise.

Harmonicas and banjo strings, accordions and violin strings, auto-harps and guitar strings, musical toys for children and musical instruments for adults constitute a line of merchandise which fits in well with the druggist's other stock of fancy goods. And there is good money in them, too, once the people begin to depend upon the druggist to supply their wants in this line.

Modern Drug Standardization is the title of a "working bulletin" recently issued from the laboratory of the H. K. Mulford Company, of Philadelphia. In it is set forth the necessity for the standardization, and the official methods are reviewed. Then follow extensive notes on the physiological standardization of digitalis, apocynum, convallaria, squill, strophanthus, aconite, gelsemium, and veratrum. The report of the committee on physiological standardization of the Philadelphia branch of the American Pharmaceutical Association is also included. A list of the house's standards, chemical, physiological, bacteriological, and physical, is appended.

Ed. Howe says, "Frequently you do not know, but you might find out oftener than you do."

Fire, October 30th, damaged heavily the summer home of Prof. J. P. Remington, at Longport, N. J.

Candy for Christmas.

Package Goods Are All the Go These Days, and for Valid Reasons Manufacturers Are Co-operating With Retailers to Boom a Business Which Affords Large Profits All Around.

There was a time well within the memory of some who are not yet willing to be called past their prime, when the selling of candy in a drug store was, to some extent at least, looked upon as a picayune and undignified part of the business—profitable, perhaps, in a way, but still not just what the druggist would have preferred if he could have had his “rathers.” Candy was sticky and “messy,” it attracted flies and roaches, it deteriorated rapidly in summer, and a good part of the profit went in down-weight or was nibbled off by the clerks and their friends—and all that.

But candy-making, and candy-eating have undergone as great a change since then as have the means of transportation in our urban and suburban communities, and with these changes there has necessarily come about another, a change in candy-selling. A dozen or a score of years ago candy—like soda water—was a line which appealed chiefly to children and the younger crowd. To-day candy-making is an industry which is practiced largely that grown-ups may be gratified; candy-packing and candy-advertising are branches of the business conducted by artists; candy-selling is a vocation worthy of the most earnest attention of the best commercial talent; and candy-eating is a pleasure confined to no age, sex, class, color or condition, but is indulged in by practically every man, woman and child in the country.

In bringing about this change, cause and effect have worked in a circle; better candy has created a larger demand, and the larger demand has made it worth while to manufacture more and better candy; the greater the number of eaters the more their trade is worth going after; the more the trade is gone after, the greater the number of people affected. Candy is now sold not only in confectionery stores, but in grocery stores, in toy stores, in department stores and, as of yore, in drug stores. The making of candy is a large—a very large—and growing industry; the eating of candy is a well-nigh universal custom. Then what? Just this: The distribution of candy, the passing of it from the maker to the consumer, must be attended to, and at a profit, by somebody (or, rather, bodies). Who is in the best position to handle this trade? The answer is so obvious that it will not be written here. People already are in the habit of running into the drug store for this and that, and so long as they are going to buy the candy anyhow it would be a convenience to them to be able to get it while out for a stamp, or to use the telephone, or to consult the directory, or to buy a glass of soda or a cigar, or to make any one of a hundred purchases which are necessary or desirable in every household almost constantly. And many a time when the customer had not intended to purchase candy, an attractive display of neat boxes of confectionery will induce him or her to part with the price and look pleasant while doing so. Box goods are not sticky or “messy,” they do not attract flies or roaches, they do not deteriorate so rapidly as the open kind, and when they do become a little stale the manufacturer will replace them with fresh goods, and they are not subject to the loss occasioned by too generous weighing or sampling. When fruit or vegetables are exposed in bulk they gather dirt, but fruit may be washed before it is eaten, and vegetables are usually sterilized by boiling. Meat and fish are laden with germs when they reach the kitchen, but these are destroyed by heat. Candy which is displayed in a show case in open trays and is handled by not over-tidy clerks, goes into the mouth just as it is received, dirt and all. Boxed candies do not gather dust in the store or come into contact with dirty fingers.

A stock of box goods, packed to attract the favorable attention of the most exacting, and assorted so as to catch dimes as well as dollars, may be well displayed in a show case occupying not more than two linear feet of counter space. As to the probable cost of such an assortment and the profit there comes from handling it, actual facts are more convincing than glittering generalities, so here are the facts:

Stephen F. Whitman & Son, who make an extensive line of fine candies, offer an assortment consisting of 63 boxes and 5 cartons which range in price from 5 cents a package

to \$1 a pound box, the assortment costing \$25.53 and selling for \$36.70, a profit of \$11.17, or about 44 per cent. on the investment. The Whitmans do not require their retailers to confine their stock to Whitman brands, but they seek to make their brands so attractive that the dealer will not wish to carry any other.

“Gunther’s” is a name which is associated in the minds of many lovers of sweetmeats with pretty packages of candy. A \$25 assortment of Gunther’s offered as a starter to those druggists who are not familiar with the line, consists of six boxes each of the ten kinds of candy, three boxes each of two kinds, and two cartons of 10-cent goods. The profit on this assortment is \$16.25, or 65 per cent. on the investment.

The Lowney Company’s label on candy packages became widely known through national advertising. At the request of the CIRCULAR this company has prepared a list of goods which might with advantage be ordered at one time by a druggist who has not yet built up a large trade in confectionery. It consists of six packages each of eight varieties of pound and half-pound packages, to retail at 60 cents a pound, three packages each of three kinds of higher-priced goods, five dozen 10-cent packages and six dozen 5-cent packages. The cost of this assortment to the druggist is \$24.70; the retail price \$40.20; the profit on the investment over 60 per cent.

For those who want to try a small order at first, the Collier Candy Company has a special introductory assortment of package goods which it sells for \$10. The retail price of these goods ranges from 60 and 75 cents per pound box, to 30 and 40 cents for ½-pound boxes, and on down to 15 cents for smaller packages, amounting in all to \$17.85—a profit of 78½ per cent. on the investment.

The wants of the druggists who wish to go strong on children’s trade have not been forgot. Rueckheim Brothers & Eckstein have an offer of fifty 10-cent packages, representing eleven varieties of goods, which they sell for \$3.25. While the profit on this assortment is only \$1.75, the investment is small and the rate of profit on it is large—about 54 per cent.

These are just examples of prices and profits. Of course any kind of assortment may be ordered by the druggist from almost any manufacturer. As a general thing the manufacturers pay the express charges on orders amounting to a certain sum, say \$20 or \$25, as it is to the advantage of the manufacturer for the retailer to order often and always offer fresh stock. The manufacturers, too, make a practice of taking back stale or otherwise deteriorated goods and replacing them with fresh packages.

Christmas shopping has already begun, but the candy for Christmas will not be bought until the last thing. There is plenty of time for druggists to lay in a supply of it for the holiday rush—but the \$25 assortment will be as inadequate to supply the demand as a hay rick is to withstand a Kansas cyclone.

Candy on the Side.

The side line which comes in most naturally to the bakery is confectionery, which many bakers have taken hold of within the last few years. Invariably candy, as a side line, shows a good profit, and, as a rule, is a most satisfactory proposition. The sale of confectionery over the counter is constantly increasing, and reports show that it will soon attain very large proportions. To you who have not tried it we would urge a step in this direction. Try it for yourself. You have showcases sufficient, and certainly one, or a portion of one, may be devoted to the display of dainty confections which will serve to excite the appetite, and later cause a purchase by the customer who comes to your store for bread, pies, or cake.—*Solicitor.*

The All-In-One Sundae.

Begin with a large dish, because this is no small affair. A little to one side of it lay the two halves of a large individually bisected banana, and on the opposite side place a fig and a stuffed date, flavored by pineapple cubes. At one end of the banana deposit a ladleful of ice cream, and at the opposite end arrange a sweet wafer and a few sections of an orange. On top of the banana drop a small portion of orange ice. Over the ice cream pour a ladleful of chop suey dressing, and over the orange sprinkle some grated cocoanut. If there is room left anywhere on the platter for a little whipped cream, add it, and if He doesn’t give up at least 20 cents, don’t let Her have it.

Building Up a Business in Christmas Toys.

How a hardware establishment in a small Pennsylvania city became known as "The toy store of the town," is told in the *Iron Age-Hardware*.

FIRST APPEAL TO CHILDREN.

The first appeal of the firm has always been to the children. "Get the children interested first in your toy department and their parents are bound to come," is its advice.

One year this house received a big shipment of toys a few weeks before Christmas and hit upon a clever idea to attract attention to its toy department. A delivery truck was sent to the railroad yards and Santa Claus superintended the work of taking the goods from the freight car and piling them on the wagon. The firm had advertised that at a certain hour on Saturday (this day being selected because it is a school holiday) Santa Claus would drive to the freight depot and bring up a load of toys. Children by the scores were at the depot to see Santa Claus, and by the time the toy wagon had reached the store a couple of hundred children were following it.

Signs on the horses and wagon read:

SANTA CLAUS HEADQUARTERS

at S. RECHER & GANSS' STORE.

THIS LOAD OF TOYS IS FOR

SANTA CLAUS at

SPRECHER & GANSS' STORE.

GRAND OPENING TO-DAY

From 2 to 10 P. M.

Another year Sprecher & Ganss sent Santa Claus driving around the city and surrounding country districts for days. Old Santa was seated on the chimney of a house

which was perched on top of a wagon. The house was a light frame structure covered with oil cloth and painted to resemble the dwellings that Santa visits on his rounds. This wagon visited the school houses at recess time and the children were much interested.

Every year they hold a grand opening of their toy department on a Saturday a few weeks before Christmas. The opening is held between 2 o'clock in the afternoon and 10 o'clock in the evening, and is always well advertised in the newspapers.

Another idea of this concern is to have all deliveries of Christmas purchases made by men dressed as Santa Claus.

A TOY FACTORY IN WINDOW THIS YEAR.

This year Sprecher & Ganss will have a special window demonstration of a Santa Claus toy factory. Santa Claus will be in the window all day long making toys. Such goods as express wagons, go carts, doll carriages and other toys that are shipped "knocked down" will be turned over to the show-window Santa Claus, who will assemble them in view of the people in the street.

For the Post-Holiday Week.

To take up where the holiday rush leaves off, to show the public that his entire energy was not consumed by attending to the wants of Christmas shoppers, to keep receipts from dropping off too suddenly, the druggist might arrange a tooth-preparations week early in January, or, indeed, between Christmas and New Year's. Maybe it would be better to put it off to January, as then the minds of the people will be turned to the more serious things of life and it will not be so difficult to attract their attention to and cause them to take an interest in the prosaic necessities rather than the frivolous luxuries.

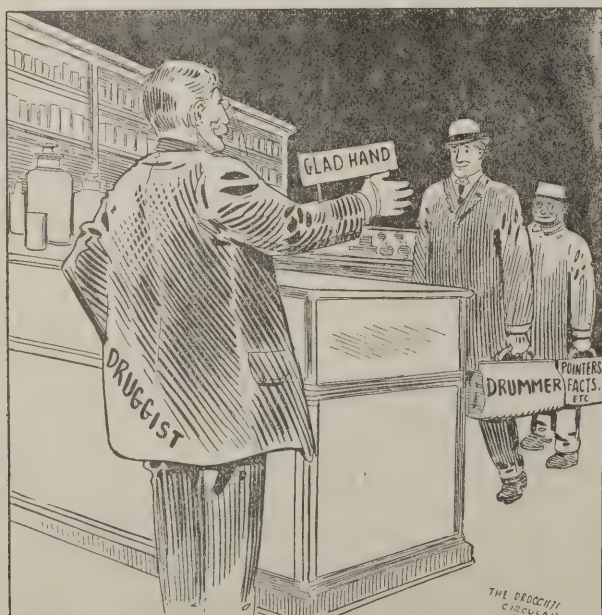
In the first place, let the druggist look around and see what he has to offer in the shape of utensils and medicaments for the teeth and mouth. Of course tooth brushes will figure prominently in his displays as well as in his printed advertisements. If he puts up a tooth powder or mouth wash of his own, it should be featured conspicuously. Manufacturers of the various powders, pastes, soaps and liquids for the teeth are only too glad to place their wares before the public in a convincing way, and the one whose goods the druggist selects for special pushing will no doubt supply him with materials for a window trim and give him some concession on prices as well.

Christmas candies will have left a trail of aching teeth, and toothache drops, toothache gums, liniments and the like will be wanted. Over-eating will have caused indigestion and bad breath in many quarters, so that cleansing mouth washes will be needed. Even toothpicks, dental floss and the smaller items of this kind will lend themselves to the display, as will, of course, "peroxide."

Windows, show cases, signs displayed about the store, circulars sent by mail, newspaper advertising and other aids to business should be brought into requisition. The whole campaign should be well studied out and arranged in advance, and not pushed in a haphazard, hit-or-miss style. Every legitimate means to interest the people in the goods, to get them into the store, and to cause them to buy should be employed. Special combination offers might be made, in which "own-make" goods should figure.

There is a great deal in psychology. Many people go to the circus who would not coolly calculate to do so, simply because the street parade attracts a crowd and the individual yields to the impulse of the crowd—is stampeded. If the druggist will so make his arrangements for a tooth-preparations week that they will get the people coming to his store in crowds, and get the crowds so interested that they will buy on account of a quasi-hysterical impulse, then it may be said that his campaign was a success. And even if it does not reach this stage he should be able to get profit out of it; and even if he does not sell enough tooth goods to pay for his advertising, the campaign will not have been in vain as it will have a sort of cumulative effect and make other campaigns easier. It will also have made the public better acquainted with his store and cause them to regard him as an active, aggressive man worthy of their patronage.

Dregs sink to the bottom of a bottle of syrup. Admitted. Most people do not like to drink dregs. Not disputed. Draining the last teaspoonful of syrup from a bottle will bring out such dregs as there may be in it. Hardly denied. Well, what's the answer? Let each man find it for himself.



Be Good to the Drummer and Maybe He'll Be Good to You.

Three Timely Trims.

To Give Pause to the Holiday Shopper Is to Get Some of His Trade—Suggestions for Catching the Passing Eye—How to Make the Window Work.

BY BILLEE BARRIE.

Twice in the year's roll of seasons comes a time when savings banks are multitudinously visited and the stockinged hoard is scattered. Once, when the sun shines on both sides of the street and the vacation germ becomes lively; again, in the pre-holiday days when even the baby's bank suffers from the spending epidemic. And illy a druggist is he who profits not out of the universal pastime of buying.

Who gets the vacationist's money? The man whose bid for it rises high above a whispered request. Who profits from the Christmas buying? Whosoever catches the shopper in his flight. Then let the visible portion of the store be decked with that which suits the gift-giving fancy or the other exigencies of the season.

Brother druggist; try these in your window:

SAVORING OF SAVORINESS.

In the beginning of the third week before Christmas, having cleaned and polished the glass front, spread over the bottom of the window a white cloth and place thereupon three pedestals of any convenient size and shape. Upon each pedestal set a large glass bottle or carboy, one filled with water colored light yellow, another containing a solution of caramel, and the third full of a not too brightly orange liquid. Label the respective containers so as to give to the gazer the impression that they contain flavoring extracts: lemon, vanilla, orange. Seal the top of each container with a goodly amount of red wax; and attach to each a "This-is-to-certify" document bearing a saw-toothed scarlet or golden seal, and lettered in heavy near-engrossing so as to simulate a decree of the highest mighty-and-majestic. Let the lettering be a certification of the purity of the contents and a statement of the ingredients. Embower this exhibit with a trellis of green leaves, cut out of shiny coated paper. Hang among the leaves three groups of fruit: over the lemon extract, elongated spheroids of canary-colored tissue paper; over the brown liquid, bunches of long slender twists of brown tissue paper, glossed over with shellac; and over the orange extract, orange-colored globes of tissue paper. Hang the back with more leaves, and, if desired, more fruit. Let the announcement card be of white cardboard with pasted-on leaves and fruit from a soda-water advertisement; and let it tell how almost futile is the endeavor to concoct delicious comestibles without those particular flavors, and also how little money is asked for eight, or sixteen, or more, full teaspoonfuls of the flavorings.

HELPING IN GIFT-SELECTING.

After a week has passed remove the colored water and the paper vegetation; wash well and polish highly the glass front, and proceed to arrange the following: Get fifty sheets of the largest size of white paper to be found at the printery. With paste and cloth give to this pack of paper the appearance of a note book, with a turned-back cover. Rule the first page of this tablet and letter it thus:

For Father—Calabash pipe. Get it at Casserole's.
For Mother—Piece of cut glass (she wants a rose bowl). Get it at Casserole's.
For Buddy—Safety razor. Get it at Casserole's.
For Sis—Five pounds of candy. Get it at Casserole's.
For Mary—That manicure set at Casserole's she admired.
For Tom—Military hair brushes. Get them at Casserole's.
For Grandma—Big red hot-water bottle. Get it at Casserole's.

Get on as many items as the space will permit. Place this gift list on an easel in the center of the window, the bottom having been covered with a crinkled cloth of any desired color. Arrange about the window one each of the various items contained in the list, using the best grade of each and attaching to each a small holly-decorated card giving the range of prices. For the background hang a piece of white cotton-flannel, wooly side showing, on which

has been glued a scattered group of conventional cone-shaped evergreens cut from green paper and sparingly hung with globs of cotton "snow."

THE UNIVERSAL FAVORITE.

For the big-buying week a candy display is most suitable; and to arrange a catchy one cover the bottom of the window with a mirror or a plate of glass over a dark cloth—it is assumed that the glass has been duly cleaned and polished—and place at one side, in the "bend" of the window an elevated platform made of a barrel head resting on blocks about four inches high, and connected all around with the floor by means of cardboard sloping in at the top. Over the entire sloping shoulder arrange a layer of green French creams (the 20-cent sweets of our youth). Arrange on the platform a mosaic of creams of various colors simulating a bed of flowers. In the center of the window build a circular coping of green lime drops and within this erect sprays of rock-candy on thin wires to resemble a splashing fountain. Here and there have small rustic bowers of chocolate chips, bizarre pergolas of striped sticks, grottoes of chocolate drops, pagodas of brown and yellow caramels, popcorn bushes made by tipping thin wires with colored popcorn grains and bending them into shape, marshmallow palaces, "clear toy" figures, horehound rock walls, and any other additions to a landscape that fancy may dictate. If small colored electric lights can be included the effect is greatly enhanced, particularly after dark. Hang at the back a light-blue silk ground sprinkled with tinsel stars. Above the display hang a silver-paper placard with the following wording:

A GLIMPSE OF CANDY LAND
The Sweetest Place on Earth

Send your friends
Go yourself

Everybody enjoys the trip

For transportation at special holiday excursion
rates inquire within. Booklet free.

P. S. After Christmas run a display of tooth brushes and dentifrices.

Suggestions for a Christmas Window.

Over at Allentown, Pa., Dr. Nagle's Pharmacy seems to have captured a window dresser with ideas. His Fourth of July trim was described and photographically illustrated in the CIRCULAR for August, page 442, and he has described one of his Christmas displays for the CIRCULAR.

The central feature of this trim is an airship, suspended from the ceiling of the window space, the passenger in the ship being a conventional figure of Santa Claus. The back, sides, and ceiling of the window are covered with festoons of laurels, and the floor by a light-colored cloth. One sign, held in Santa Claus' hands, referred to the old gentleman's personal endorsement of the goods distributed about the window, while another and larger one, bearing the store's expression of the season's good wishes, was placed in an appropriate corner.

The body of the airship was made of a 25-pound insect-powder keg, through holes in the center of which a wooden broom handle had been run, longitudinally. From each end of the keg to the corresponding end of the stick, fine wires were strung, and the whole was covered with paper tacked or pasted on. The car was made of board. It need not be in the form of a box at all, but may be represented by a single board, hung by one edge from the car above. The propeller may be cut from card board, and attached to the car by means of a small rod. A lattice-work for the car, made by winding colored twine around the board, gave a more finished appearance to the outfit.

Dr. Nagle's window trimmer does not claim that the idea is new. A somewhat similar trim was described by J. G. Brooks in the CIRCULAR for November, 1907, page 714. The suggestion, however, is a good one, and now is a seasonable time to act upon it.

Just about the neatest, most attractive, most helpful booklet addressed to soda-water dealers that has come this way in many a season, is the Bishop-Babcock-Becker "Bigger Broader Business"—there's a swarm of B's for you! This booklet begins by saying that the annual sales of soda water amount to approximately \$500,000,000, and asking the reader if he is getting his share; and before it ends it has given him many suggestions as to how he may get his share and maybe a little more.

Hot Soda as an Adjunct to Cold.

Increased Call for Hot Beverages in the South—An Attractive Baltimore Fountain at Which Women Shoppers May Indulge in Hot or Cold Soda and a Luncheonette..

There is every indication that the business in hot drinks at Baltimore soda fountains this fall and winter will be greater than ever before. The public is being gradually educated to ask for hot soda, and the "habit" is taking a strong hold on the people of the Monumental City. Many of the soda fountain men that have made provision to take care of the augmented demand, and the number of stands where hot drinks are dispensed will be larger than ever. Some of the druggists who have heretofore held aloof from hot-water urns and the other equipment feel that they can no longer afford to do so, a steady trade having been developed by the pioneers in the movement which promised to benefit all druggists who equipped themselves to take advantage of it.

HOT DRINKS MUST BE GOOD TO BE POPULAR.

Of course, the hot-drink business, like everything else, is not to be treated with indifference if a soda-fountain stand is to make a success of it. There must be more than a mere disposition to serve a customer who happens to call for a glass of hot soda. Real enthusiasm and that indefinable something which leaves no doubt in the mind of the patron that the proprietor regards what is being done as worth doing well must be in evidence. Mere perfunctory acquiescence in the fact that a demand for hot soda exists and that the soda-fountain man has made up his mind to serve something in that line, but that the whole business is a lot of bother and of no account, will not yield a profit. Much depends upon the personality of the man behind the counter as well as upon the quality of the drink.

According to Ralph A. Nattans, general manager of the Read Drug Company, which conducts two stores at Baltimore, the business in hot drinks is well worth looking after, and is rapidly on the increase. The Read Company's down-town store, at the southeast corner of Lexington and Howard streets, a section crowded during the day with women shoppers, but deserted at night, is a day-time store only.

Speaking of the hot-soda trade to a representative of the CIRCULAR, Mr. Nattans said:

"Although it is still early in the season, and the business in hot beverages may be said to have hardly more than begun, we already notice a big increase in it. In the first place, we have sought to make it as attractive as possible for our patrons, and with this end in view we have installed one of the handsomest fountains that money could buy. As you see, it is rigidly plain, but attractive, there being a quiet dignity and a refinement about it which people of good taste admire. This fountain, which is entirely of onyx, marble, plate glass and plated metal work, gives us about 27 feet of counter room. The only adornments are a large bowl of fruit and flowers. The latter we always keep fresh, giving a vernal touch to the entire fountain.

ALL COLD SODAS, FIVE CENTS.

"We believe in small margins of profit and in a large volume of business, hence all our drinks, both hot and cold, are 5 cents, with the single exception of large sundaes, which are 10 cents. Thus, while we occupy an expensive location and are under a big outlay for expert help, and plenty of it, we get the patronage of the great public and not merely of a limited part of it. The low price does not mean cheapness of material. We buy the best quality of everything that is put into our drinks, and we place competent, efficient men in charge of the service. Our young men wear white coats and white aprons, with the name Read's on the collars of the coats, but without any other distinguishing mark. The men are not permitted to wear caps or any other headcovering, and they are required to be polite and accommodating.

"Our list of hot drinks includes chocolate, cocoa, all the bouillons and broths, and similar things. We have one of the latest urns, of three compartments, each holding 3 to 3½ gallons. In addition to the ordinary method of heating, we installed an electrical apparatus, which enables us to heat a drink in just 45 seconds.

SHOPPER'S REFECTORY.

"As a great majority of our customers are women, girls and children, we make our fountain additionally attractive to them by serving fancy cakes with hot drinks, salt wafers with bouillon and beef tea, and liberal quantities of whipped cream with chocolate. We also sell sandwiches of various kinds. By this means we attract many persons who would not otherwise come into our place, but would get something to refresh them from the fatigues of shopping in the various department stores nearby. We have ham, tongue, chicken-salad, and lettuce-and-egg-sandwiches, and they are not of the usual afternoon-tea size, but good generous slices of bread with something between them. The sandwiches are made up fresh in batches of about thirty or forty, so that they do not get stale. We also offer pound cake and fruit cake.

ADVERTISING.

"Of course, we are not content to rely entirely on the quality of our soda fountain beverages and eatables to extend the business, but advertise in a judicious way. There is not a package going out of the store that does not have one of our printed slips, which are changed every week, each department being taken up in turn."

By way of explaining his advertising method Mr. Nattans produced a pad showing in regular order the slips for a number of weeks past, with a memorandum covering the soda fountain for the very next issue. The slips are about four by three inches, printed on good paper in bold, clear type. The merits of the soda water and other articles sold in the store are set forth in striking phrases.

"We also use the newspapers," continued Mr. Nattans, and he exhibited one of his recent cards, occupying some three inches of a single column, showing an illustration of a cup, with references to hot soda and other things printed on the side of the cup, and a cloud of steam rising therefrom. Under the picture of the cup was the catch line of the store, "Run Right to Read's," outlined in white on a black background. The card was easily the most conspicuous on the page, though not flaring.

Some lettered signs outside the store are the third method, but this has been practiced less extensively during the past month than before. There are no cards about the fountain, the proportions and natural beauty of which are relied upon to make a stronger impression upon the patron than would be produced by decorations.

All the mixing and drawing of soda water and other drinks is done right before the customer, so that she can satisfy herself that the processes employed are scrupulously clean. During the greater part of the shopping hours three dispensers are employed, and at no time less than two.

Mr. Nattans looks for a large increase in the hot soda business this winter.

Tips for the Soda Clerk.

Give the man what he thinks he wants; don't try to convince him that what you have served is it. You may be right, but he has the money.

Remember the story of the man who ran to get across the street ahead of the electric car, and then turned around and watched the car go by and disappear: he was in no hurry, but he just simply had to beat that car. The same man may sit on the stool five minutes after finishing his drink and receiving his check, but if he had to wait half a minute for the check he would be almost ready to throw a fit. Humor him; he helps to pay salaries.

Hunger is the best sauce for a meat dinner, and pleasing manners behind the counter lend an agreeable flavor to all fountain confections.

Syrup is one of the most expensive articles used at a fountain—especially now that sugar is chasing the beef that has got nearly as high as the moon—and it is one of the most wasted, the average drink dispensed being too sweet.

Once a soda clerk put his fingers on the rim of the glass in serving a customer. The judge gave him ninety days, and they all said he got off easy.

Every drink served at a fountain should be "custom" made and "custom" served, and not dished out by the dozen. Those who need a diagram for this chip of wisdom would not be helped by it.

A few paper napkins kept within easy reach about the soda counter come in handy on many occasions.

Serve each customer as if he were a new one and you wished to make him come back.

Opening Day at the Fountain.

Not too Early to Plan for an Increased Soda Business Next Year—One Man Took Time by the Forelock and Proved a Winner—Some Details of His Successful Methods.

How his new soda fountain was installed, how he let the folks know about it, and what some of the results have been are the burden of a little lay sung by a Tennessee pharmacist whose fame extends far beyond the confines of his city, or even State.

Ira B. Clark is this druggists' name, and Nashville is his place of business. Let him tell his own story, and let all pay strict attention, as it carries a lesson which should prove of value:

AN EARLY START.

"In the first place, I gave myself plenty of time for the installation of the new apparatus, by buying the latter part of last year and having it shipped in January, during the dull season, and at a time when the manufacturers are not so much rushed with orders. I think this matter of early buying is very important, as it gives the factory more time to get the fountain assembled properly, and it gives the buyer plenty of time to make the installation and allow for the length of time taken up by the plumbers, electricians, etc., as they are notoriously slow in such matters.

"Without undue delay my new fountain was installed, plumbing and electrical connections all made, and ready for business February 8th. At this time the weather man was on his good behavior, and with the favorable weather he handed out, business was good from the time the first glass was drawn and continued good until the first cold snap of fall. Of course, those of us who have had experience with a fountain know that the first part of the cold soda season is always the best.

ADVERTISING AN OPENING.

"On May 4th I gave a soda-fountain reception which was quite the most pretentious thing of the kind that was ever 'pulled off' in this 'neck of woods.' I advertised the event by distributing 3,000 circulars, 1,500 at a time, the first lot going out two weeks before the date of the reception and the others one week before, and in addition to the circulars that were distributed, I mailed 500 invitations three days before the event.

PRIZES FOR MEN AND WOMEN.

"The day of the reception broke clear and fair, and I had the store and fountain decorated with cut flowers and potted plants, and was told by a great number of my customers that the work was very tastefully and attractively done. The entire store force waited eagerly for the 'show' to begin, it having been set for two o'clock. I had a band of music from two until eleven o'clock, and promptly on the former hour the music struck up a lively air and from then until late at night the store was packed. I gave a very pretty souvenir to each lady who visited the store, and in addition I had a number of samples, including candy, face powder, talcum powder, toilet water, perfume, etc., placed in a two-pound paper bag and fastened with a clip, which was given out to each lady. I also put in the bag a two-dram vial of extract of vanilla of my own make, which has proven excellent advertising, judging from the increased sale of this product since that time. I also had a contest, the prize being a cut-glass bowl, in naming a new perfume. The perfume was a combination odor and the prize was given for the most appropriate name for it. This feature proved quite the best number on the program, as the counter devoted to it was crowded all during the afternoon and evening. A great number of good names were suggested, and the one which I selected as the most suitable was 'areo mist.' In this connection, I will say, no purchase was required in order to enter the contest. I also had a prize of a box of cigars for the men.

GETTING ACQUAINTED.

"At two o'clock I stationed myself at the front door, with the idea of meeting personally every one who entered, and if possible giving him or her a word of welcome and a hand shake. This I succeeded in doing fairly well, but, of course, was called away occasionally to wait on some particular customer. With the exception of thirty minutes of time for a little luncheon, I was "on the job" from two until eleven o'clock, and it seems hardly necessary for me

to state here that I felt, when bed time came, that I had done a full day's work.

"Quite a bit of my general trade is by 'phone, and I have some customers that rarely come into the store. On this occasion a number of ladies introduced themselves, who, I recalled, were good customers of the store, but did all their shopping by 'phone.

"The reception was a decided success, as before stated; it brought a number of people into the store who possibly had never been in before, and thereby established a closer relationship and a more friendly feeling between them and myself.

KEEPING IT UP.

"The 'opening' is still mentioned frequently by my customers. In order that they should not be allowed to forget the new fountain, I had several thousand post cards made bearing its picture in colors, and during the summer months I mailed these, using my mailing list of 500 names, once a month, calling attention to the quality of my ice cream and cold drinks, and to special drinks occasionally, as they were put on. I played service and quality up strong on these cards and have been very particular to see to it that these two features were maintained at the fountain.

"The season has been an extremely favorable one so far as the weather is concerned, and to this, combined with the new fountain and the advertising thereof, I attribute the doubling of my soda trade this year. The increased trade at the fountain has helped the general trade to a very gratifying degree.

NO CHILD'S PLAY.

"I want to say right here, that putting on an affair of this kind is not child's play, and any one contemplating such a thing may expect to do a lot of hard work to make it a success. But the returns are good, and from an advertising standpoint the outlay is very profitable, and my advice to anyone and everyone installing a new fountain is to let his trade know of it with an 'opening,' but do not stop there; make it an annual affair, as I expect to do, with, of course, some modifications. It will pay and pay in big returns."

Whipped Cream.

Whipped cream added to a suitable drink is a comparatively inexpensive addition, which adds greatly to its attractiveness and, being appreciated by the customer, the dispenser can well afford to devote the time involved in making and serving it. Special machines have been constructed for whipping the cream, but most dispensers prepare it with an ordinary egg-beater. Genuine whipped cream is nothing other than pure cream into which air has been forced by the action of the different apparatus manufactured for the purpose; care must, however, be exercised in order that butter is not produced instead of whipped cream. To avoid this, the temperature of the cream must be kept at a low degree, and the whipping must not be too violent or prolonged; hence the following rules must be observed in order to produce the desired result:

1. Secure pure cream and as fresh as possible.
2. Surround the bowl in which the cream is being whipped with cracked ice, and perform the operation in a cool place.
3. As rapidly as the whipped cream rises, skim it off and place it in another bowl, likewise surrounded with ice.
4. Do not whip the cream either too long or too violently.
5. The downward motion of the beater should be more forcible than the upward, as the first has a tendency to force the air into the cream, while the second tends, on the contrary, to expel it.
6. A little powdered sugar should be added to the cream after it is whipped, in order to sweeten it.
7. Make the whipped cream in small quantities, and keep it on ice.—*Southern Pharmaceutical Journal.*

We are pulling down the boss's cash every day for serving his customers in a polite, courteous, cordial manner, and public demand for such clerks has had much to do with the making over of a lot of the old grouches who occasionally have broken loose in our midst.—*Iron Age Hardware.*

Some druggists think a formula is the key to success as a manufacturer; others buy an ointment mill.

Shortcomings of Salespeople.

A Strollerette Comes to Judgment—Breathing on Scale Pans, Mixing Perspiration with Candy and Some Other Things Animadverted Upon by a Real Lady.

In the November issue of the CIRCULAR a certain "Stroller" told the story of his life and brought much dark material to light. Now it so happens that I am one of those "real ladies" of whom he made mention, and I know several very dark things indeed about which the "Stroller" has no knowledge, even though he has been in drug stores without number.

CANDY THE SUBJECT OF HER QUEST.

Unlike the above mentioned "modern Harun-al-Raschid," I do not especially care for soda water, but there is another side line carried by practically all druggists which is frequently the recipient of my patronage—in other words, I have what is known as "a sweet tooth," and candy is always a temptation. 'Twas this craving for sweets that led me to the candy counter in a drug store which I had always found spotlessly clean.

It was quite early in the morning, and my stomach was doubtless shouting "castor oil," but I mistook the voice and so thought the demand came from my "sweet tooth." Alas, mistakes are costly, and in this instance the price paid was quite high. As I entered the store I noticed the attendant polishing the scales, and in his hands he held the pan or scoop, which, to my inexperienced eyes, seemed dazzlingly bright.

Before making my wants known I smiled as sweetly as only a real lady can, and said: "Do you polish your scales every day?"

The answer was, "Yep. That's goin' some, ain't it?" And then, oh, horror of horrors, he breathed on the scales and rubbed as though all the elbow grease in the world was centered at a spot near his "funny bone." Needless to say, the smile of the real lady came off, and her craving for candy was not satisfied that day.

HER APPETITE ON AGAIN, OFF AGAIN.

It was quite a long time before I again ventured into a drug store for candy, but one very warm day last summer I dropped into a convenient pharmaceutical restaurant for a sundae. Before securing my check I chanced to glance over the counter and saw how the glasses were washed, or, to put it more correctly, how they were smeared. The soda dispenser merely dumped them into water which had, apparently, served as a bath for all the soiled glasses of the day. His hand went into the water with each immersion of a glass, then still dripping wet, the same hand was held over the glass in which he prepared the next beverage called for.

Disgusted, I turned to the candy counter, where a neat looking chap was weighing out something for a customer. It was a country drug store and the demand for chocolates in original wrappers was not large there, and practically all the confectionery sold was weighed out by the young clerk. He was quick and graceful, and I enjoyed watching him. I soon had the opportunity to make my wants known, but I wished with all my heart that I had never opened my lips to him on the subject, for in order to facilitate the operation of wrapping up my purchase he moistened his fingers in his mouth before seizing upon a piece of paper which lay ready to his hand. That is a store to which I shall never attempt to "come back."

A WOMAN JUDGES WOMAN.

My next experience was also in a village and on a warm day. The drug store was quite large and there were two girls on its force of clerks. The place was practically empty at the time. Miss Toilet Articles was talking to Miss Confectionery when I entered. After I had waited long enough to realize that "he sez," and "I sez" really do sound better than the old-fashioned "sez 'e,' sez I," Miss Confectionery, with eyebrows raised as if to say that she didn't at all approve of my appearance, finally condescended to notice my presence. Meekly I made my wants known, then perched upon a stool to wait, for a still, small voice which has often proved my friend, told me that it would be just as well to make myself comfortable. When my patience was about exhausted I peeped to see what could be the cause of the long delay. I did not find out, but I saw the cover of a newly opened candy box firmly

held under the perspiring arm of the lady in waiting, and, worst luck of all, the inside of the cover was pressed close to the steaming body, which was partly covered by a peek-a-boo of peek-a-boos. I wondered who would get the top layer from that box of candy after the cover had been replaced, and again removed. As for me, I was more than glad that my candy came from a box whose lid I had not seen in any such intimate contact with a none-too-appetizing body.

Of course at the larger drug stores people generally buy their candy in original packages, but when I can I like to have mine weighed out before my eyes. No, I'm not afraid of being cheated; it just happens to be one of my little peculiarities, but the experiences I have had have almost cured me. One can't really be blamed for not relishing an addition to her chocolates of saliva, perspiration, etc., let alone the horrid germs.

A NEWPORT WINDOW DISPLAY.

And now while I have my hammer in action, I might as well relieve my mind of something else concerning a drug store which has been agitating it for some months. Newport, as everyone knows, is a very beautiful city, and most of its drug stores are kept in a commendable manner. While visiting that city last summer, however, I learned to understand just how much window displays counted for. This is how I received my lesson:

Several times while walking along the principal business street I had observed a drug-store window, which, thank goodness, was unique. In addition to being unique it was an eye-sore, and I thought, in my womanly way, "I wouldn't be hired to buy anything in such a looking place."

One day, when walking with my cousin, I chanced to gaze at the window in a manner to attract her attention. "Maybe you will not believe it," said she, "but that's the neatest, nicest drug store in the city, and I always like to trade there."

Surprised, I looked into the store as we passed the door, and certainly nothing could have been more attractive than its orderly appearance and conveniently arranged stock. The interior of the store seemed to say, "Come and buy," but the window said in even louder tones, "Here's where you buy the things Noah and his family could not use. Going cheap!"

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